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TRACKING STUDENTS' STUDY PROGRESS

Students' and guiding teachers' accounts at the vocational school and higher education levels

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ABSTRACT

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Tracking credit accumulation is a small, but an integral part of the study counselling. For students it is a means to manage and master their study progress. However, challenges exist for educators in following the status of their students. A study was conducted at a vocational school and university of applied sciences in Finland to explore the issues relating to credit tracking. Primary data was collected from both participating institutions in the form of a student survey, guiding and counseling staff interviews and a co-creation workshop for students.

Five key findings emerged from the research data. 1. Students and teachers had contradictory views on the skills and motivation for tracking study progress. 2. Tools used at the education institutions were not adequate for the purpose especially in cases of deviating study paths. 3. There was a lack of coherence both in used systems and ways of working related to guidance and counseling. 4. Teachers had sparse resources for the guidance and counseling and 5. Sparse resources had led to infrequent study progress follow-up which in turn challenged guidance and counseling work.

This study suggests that there is a great importance in following credit accumulation, because it effects on students' possibilities for getting a degree and career planning and education institutions funding. Thus, the process of tracking credit accumulation as a means of counseling and guidance is important. Heterogenous student population with diverse needs, unfit tools for following study progress, and scarce resources for guidance and counseling challenge the education institutions' in keeping track of students' credit accumulation. Findings from the data can be utilized by vocational and higher education institutions in redefining guidance and counseling resources and practices as well as developing the tools used for following study progress.

Keywords: tracking, study progress, credit accumulation, guidance, counseling, student data management, learning management systems

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1 INTRODUCTION

Tracking students' study progress is a part of study counselling and guidance service, which numerically indicates the progress of his or her studies. It is an indicator to the education institutions that their main purpose, teaching and learning, occurs progressively, and for a student, it serves as a means of managing one's studies, and taking a responsibility for them.

Tracking student progress at the higher education level has interested the European Commission demonstrated by extensive research by European University Association (Gaebel et al. 2012). The data in that research was collected with through a survey (31 countries with 32 higher education systems), site visits (23 institutions in 11 European countries with 12 higher education systems), and expert interviews. According to the president of the European University Association Mrs. Maria Helena Nazaré, the initiative for the research was a notion, that the student population is becoming more diversified with lifelong learners, school leavers and international students and in this context, the process of tracking student progress hasn't been so far considered (Gaebel et al. 2012, 6). This study emphasizes the importance of tracking students' progress. It was noted that student tracking is indeed critical especially on the first study year and many of the measures of it relate to ensuring retention and on the other hand preventing dropout (Gaebel et al. 2012, 10). The issue of tracking students' progress and following credit accumulation has been acknowledged internationally through studies that show the great importance of the action or process itself (Vuorinen et al. 2005, Opetus- ja kulttuuriministeriö 2010, cited 23.10.2019, Moore & Schulock 2009, Skaniakos et al. 2018, Hailikari & Parpala 2014).

In the Finnish context, tracking study progress is related to the accumulation of numerical study credits, which is monitored and followed in guiding and counselling sessions and by the Finnish government by awarding a study grant based on the accumulation of credits. It has been noticed and demonstrated by several researches also in the USA, that early accumulation of (college) credits is a means of providing momentum toward degree completion. In one research it was noted that the decline in credit accumulation indicated limited engagement and students at high risk of dropout, which is in line with the figure 1 describing the tracking of students' unsuccessful study progress. (Moore & Schulock 2009, 3-4). As stated, students must gain the required number of

credits in order to get a degree. If this fails, i.e. credits are not accumulating, study progress may not proceed. The figure below demonstrates how following students' study progress effects on the students' study path holistically.

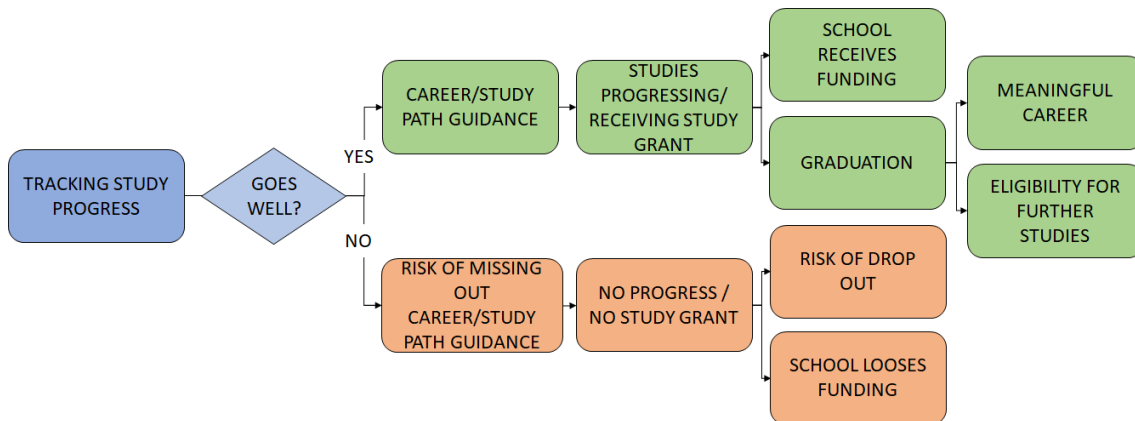


Figure 1. The effects of tracking students' study progress successfully or unsuccessfully. Chart created by the researchers.

The credits, or points, indicating the study progress, make up a degree with a certain amount of study points. For example, European higher education institutions' bachelor's degrees are from 180 ECTS – 240 ECTS. In vocational education in Finland, the basic degree usually comprises 180 ECVET points. Across Europe, two common systems are widely used - the European Credit Transfer and Accumulation System (ECTS) and European Credit System for Vocational Education and Training (ECVET).

ECTS system is used to make courses and studies more transparent and helping institutions to transfer credits earned during studies into credits counting towards students' degrees. The system has been adopted by most countries in the European Higher Education Area as the national credit system and is used also outside Europe. (European Commission 2019a, cited 15.9.2019). ECTS credits, which in general are whole numbers, express the volume of learning based on the defined learning outcomes and their associated workload. (European Commission 2019b, cited 15.9.2019). There are obviously a wide variety of ways to measure study progress, but as stated – in general it is numerical based on learning outcomes and the workload. In Finland, all higher education

institutions are using the ECTS credits. In vocational schools in Finland, the measure is a competence point that corresponds to ECVET points.

ECVET is a technical framework for transferring, recognizing and accumulating learning outcomes of an individual in order to achieve a qualification (EMEU 2020, cited 22.8.2019). It helps in recognizing and acknowledging learning for a degree and acquired elsewhere (outside of school). The ECVET system helps also in improving the transparency of degrees and curriculum, and promotes the mobility of people in training and in working life. ECVET is based on learning and covers official, unofficial and everyday learning (Opetushallitus 2015, 8).

ECVET has two wider goals: promoting international mobility primarily within European Union and making lifelong learning easier. At the center of ECVET is the individual learning gained through formal, informal and everyday learning as well as the result of good quality studies. ECVET is closely connected to the ideas of competence-based learning while supporting the individual learning and planning of individual study paths. Having a common transfer system for study credits helps in comparing the curriculums of education providers both nationally and internationally. ECVET works together within the framework of European degrees as a tool in standardizing degrees and part of degrees between education providers in different countries. Each degree and part of a degree can be described with the help of ECVET credits (Opetushallitus 2015, 15).

A scan of research concerning tracking students' study progress in the Finnish context, suggests that study credits are strongly related to the study grant received from the Social Insurance Institute of Finland, Kela. Because the grant is administered by the government, the Ministry of Education and Culture emphasizes developing tracking students study progress in education institutions since students receive the grant for their studies only if there is progress. The Finnish Ministry of Education and Culture has set a numerical objective for study progress, which currently is 5 credits per study month or minimum of 20 credits per an academic year (Kela 2019, cited 5.9.2019).

Another driving force for education institutions to follow study progress is overall government funding for education. In the new Finnish financial model from the Ministry of Education and Culture for 2021-2024 the largest portion of financing comes from completed degrees, 56%, and in total of 76% of the finance to institutions is allocated based on educational functions such as life-long

learning, 9%, and employment after graduation, 6% (Opetus- ja kulttuuriministeriö, 2019, cited 23.10.2019). In vocational schools, the share of financing coming from completed degrees or parts of the degrees is 35% and 15% relates to impact funding (including employment and life-long learning). All in all, the portion of funding coming from the completed degrees is high in both education levels, which creates pressure on institutions to follow their students' study progress closely.

When comparing the funding to educational institutions and how it is linked with study progress between countries, systems do vary. For example, in Sweden, there is a similar system of study grants and loans compared to Finland which can be applied from the Swedish Board of Student Finance, a Swedish government agency under the Ministry of Education and Research. The grant is also based on a student's study progress (see <https://www.csn.se/>). In Germany, studies are also supported by the government. The German Federal Training Assistance Act (BAföG) is based partly on performance, but not to the same extent as in Finland or Sweden. For example, in Germany students must pay back the grant only if they fail to complete less than 30% of their studies (see <https://www.mystipendium.de/bafoeg>). A significantly different model of financing studies can be found in the United Kingdom. In the UK, the government does guarantee a tuition fee loan, which is paid directly to the institution, while a student needs to pay back the loan eventually. The condition for the loan is not the study progress (see <https://www.gov.uk/student-finance>). There is, as can be seen, differences in granting loans or funding for studies between countries, where in some the funding is closely linked in study performance and in some, totally independent from it. Overall, it could be easy to assume in the Finnish context that the push-factor for students to progress in their studies is strongly government driven in the form of a study grant. Therefore, in Finland there is indeed a connection between following study progress with funding, both to the education institutions, and to the students.

Tracking study progress affects students and education institutions financial situations as well as on students' future possibilities for getting a degree, further education and career planning. This research has been initiated as a response to perceived challenges with existing systems for tracking and managing students' study progress. Furthermore, this research has been conducted in order to shed light on questionable myths regarding student progress such as the assumption that students didn't possess enough motivation or skills to track their study progress. As a result,

the two co-authors have come together to conduct joint research. The authors work at the Oulu University of Applied Sciences, from now on Oamk, and Oulu Vocational College, from now on OSAO, respectively. Both institutions are located in North-Ostrobothnia, in the city of Oulu, Finland.

Oamk is the 6th largest university of applied sciences in Finland based on the number of students. In comparison, the largest is Metropolia in Helsinki, where the number of students is 16 245. The number of full-time students in Oamk is 8565 including part-time and open-university students, and 600 staff members (Vipunen 2019a, cited 10.1.2020). In Oamk, there are six study fields. By the order of size - in starting places – the fields are engineering with 31% of the starting places, health and social care 27%, business 17%, information and communication technology 15%, media and performing arts 6% and natural resources with 4% of the starting places.

When looking at the student amounts in all degrees per the arranging party of the education, OSAO is the fourth largest vocational school in Finland. The number of students from the 2018 statistics is 11 583. In OSAO's case the education was earlier arranged by Oulu Region Joint Authority for Education (hereby Osekk) and starting from 2020 after the name change by Education consortium OSAO. The largest vocational education provider in Finland is the city of Helsinki with 16 230 students, followed by the city of Tampere with 14 412 students and Jyväskylä with 11 799 students (Vipunen 2019b, cited 10.12.2019).

OSAO provides teaching and official diplomas and certificates in the following fields:

- Culture
- Business and Administration
- Social Services; Health and Sports
- Technology, Communication and Transport
- Tourism
- Catering
- Natural Sciences (OSAO 2020, cited 23.1.2020)

The authors worked together on the same topic since it was viewed that there were numerous parallels between the higher education and vocational school level in the Finnish context. Even though this work covers different levels, many of the institutional processes and functions relating

to guidance and counselling, and the following of study progress, were also seen as resembling each other closely.

When addressing the topic in discussions, students and staff members from both institutions were keen on talking about the matter. These discussions led to the planning and application for research permits, which were approved from both institutions. Additionally, many of the vocational school students do continue their studies to the university of applied sciences. Statistical data from Vipunen Education Statistic Finland from 2017, demonstrates that 47,4 % of the new students starting at the university of applied sciences have a vocational degree (Vipunen 2019c, cited 23.8.2019). At Oulu University of Applied Sciences, from the applicants, 50,7% have a vocational degree. Therefore, the joint research is intended to expand learning about the further development of tracking study progress as a part of the counselling.

The specific purpose of the study is to find out how students and counselling staff are tracking (students') study progress, how they perceive the process itself and the tools used for tracking. Furthermore, there was an interest in finding out students' engagement in tracking and their motivation to complete it. Thus, there were two heterogenous groups of people involved in the process whose input was needed in receiving the data.

The consequences of omission the tracking study progress as an integral part of study counseling are serious. Students may lose track and even drop off studies. These aspects also were taken into consideration on this research. The aim was to find out how students themselves perceive the process of tracking their own credit accumulation and their dedication to it. Also, alongside teachers' perceptions on the topic required attention, because they are heavily involved in the process as educators and guiding persons.

The specific research questions are as follows:

- How do students perceive the process of tracking their own study progress and credit accumulation?
- How do teachers perceive the process of tracking their students' study progress and credit accumulation?

- How does the study progress show in student's study path (from the beginning of studies to the graduation) and on the other hand as a part of study counselling?
- What is the significance of tracking studies in the bigger picture, as a part of the whole?
- What would be an ideal way of tracking studies?

The following section outlines the processes of study counselling in both institutions, OSAO and Oamk. It is noteworthy that the processes described below are drawn from the guidance and counselling instructions used at OSAO and Oamk. The basis of counselling work is covered as well as guidance and practices related to it. It is important to know what the guidelines in these participating organizations are as a grounding for the findings of this study

1.1 Study counseling and guidance in OSAO and Oamk

The Ministry of Education and Culture in Finland defines the criteria for good counselling and guidance to be continuing and goal-oriented activity in order to support the learning, growth and development of students (Opetushallitus 2015, cited 22.8.2019). Guidance covers holistically the entire student's path; it starts in the application phase, continues throughout the studies, and ends when the student moves on to working life. It is a responsibility to be carried out by the personnel working in schools and in different learning environments. Students are respected and treated as individuals who have a right for counselling that is of good quality and sufficient when compared to students' own needs. Members of the staff support students in belonging into a group and working as a member of it. The student's role is to be active and committed and able to evaluate his/hers own learning and activity (OSAO 2016, 4).

During counselling, students also receive support in decisions related to life, education and career choices. The goal of counselling is to enhance students' self-esteem so that they can identify their strengths as well as areas for development. With the help of counselling students are expected to develop their professional identity and forming their skills in life and career planning. Counselling is also aimed at giving readiness for continuing studies and transferring to working life. Sufficient counselling is seen as the basis for students to be able to develop the skills needed for the future and planning their education and career choices. They should be able to make relevant choices

regarding their future. Counselling has a significant role in improving wellbeing and preventing social exclusion (Opetushallitus 2015, cited 22.8.2019).

For vocational education in Finland it is stated in the law that students have the right to receive teaching and counselling according to their curriculum (Finlex 531/2017, 61§, cited 22.8.2019). Personal study counselling needs to be given to students besides group counselling. The goal of education is to support the development of students in being balanced members of the society as well as providing them with needed skills and knowledge needed for continuing studies, professional development, hobbies as well as for developing their personality (OSAO 2016, 4).

Guidance and counseling in Oamk bases on the Universities of Applied Sciences Act. The purpose of universities of applied sciences is to provide education that is based on the needs of working life and its requirements. Education is also based on scientific, artistic and cultural aspects and aims in providing professional development as well as supporting the development of students' career paths. The duties of universities of applied sciences also include providing applied research, development and innovation activities that support the teaching provided in university of applied sciences as well as working life and regional development (Finlex 932/2014 4§, cited 22.8.2019).

The basic principles of guidance in both Oamk and OSAAO are:

- guidance is the responsibility of every staff member in the education institution;
- guidance stems from students and is based on students' individual needs for guidance;
and
- confidentiality of guidance.

According to the guidelines of guidance, the aim is to promote and support student's own activity for managing their studies. Students are also guided and supported to take responsibility and develop their independence. In a higher education institution, such as in Oulu University of Applied Sciences, students are assumed to be self-imposed and responsible subjects for their own learning activity. This sets the tone for guidance, since the students are adults of age and this is expected from the students – being self-imposed and responsible of their own learning.

1.2 Research methods

In order to find the answers to the research questions listed in the previous chapter, various data about the theme were collected and the findings discussed in chapter 4. The data were collected from the education institutions involved and secondary material scanned from various publications, books and articles. Students were also involved by bringing their perceptions on the topic through a survey and a workshop. The idea of engaging them was to make the research partially comparative and explain thoroughly the state of the matter. Another reason was to investigate whether students really have problems in following their studies or is the message from teachers merely an act of concern towards small counselling resources or frustration in student data systems.

Alongside the study, the researchers explored the conceptualization of a prototype software for following credit accumulation. The idea of this software initially would be to ease students' and teachers' efforts in following the study progress. The intention of the researchers was to compile data for future use in developing improved tools and new software for tracking study progress. However, the questions used in data collection were not formulated with the product development in mind, but from the interest and willingness to find out the current situation on the following students' study progress and the ideas and perceptions on those parties doing it.

The methodological approach selected for this research was a mixed methods approach combining qualitative and quantitative methods to understand in-depth the situation from the participants' viewpoint and the relationships between measurable variables (Williams 2007, 69-70, cited 17.12.2019). Data were collected through a survey for Oamk and OSAO students, thematic interviews with counselling teachers in both institutions and from a co-creation workshop with a small sample of students of OSAO.

Survey data was analyzed by using a descriptive analysis method, which is one of the most commonly used quantitative data analysis methods (Bhatia 2018, cited 17.12.2019). This method is useful when finding patterns emerging from the data. In this research, it was required to organize the data into visual form. Inferential statistics as a technique was employed to make generalizations of the populations from which the samples were drawn. Because it is important that the sample

represents the population accurately, the researchers wanted to receive as diverse and quantitatively large data as possible (Lund Research Ltd 2018, cited 17.12.2019).

The data type in this research falls into the orthodox definition of intentional data, which has been collected and used with all the respondents' explicit agreement (Savin-Baden & Tombs 2017, 11, cited 17.12.2020). In collecting the data, the methods were orthodox as well. The survey was conducted through an online form for statistical and numerical data retrieval, but it also contained open questions for more textural data. Interviews were conducted face-to-face with 10 individuals whose work involves student counselling. The co-creation workshop arranged with the students was inspired by the principles of service design, which affected and conditioned the type of data retrieved from it. The aim of the workshop was to get user experience on the tools used for tracking study progress and ideas for improving the system(s). The methods from the service design selected were collecting user scenarios by utilizing creativity in co-creation.

The data analysis revealed a number of factors about the research topic. After analyzing each data groups from the survey, interviews and the workshop, the method then leaned towards causal-comparative research, where the researchers were able to draw conclusions about cause-effect equation between several variables (Williams 2007, 66, cited 17.12.2019). In the survey, for example independent variables were students' education institution and their current study year, whereas – again for example - the dependent variable was the study motivation and importance of following studies and graduation. Chapter 4 concentrates on discussing about the findings in more detail and also touches on the topic of future development concerning the tracking of studies.

1.3 Focus of the research

In this study, the focus is on understanding the process of tracking students' study progress, the current challenges related to it as well as finding out the problems there are in tracking credit accumulation. The development of the solution, in this case a new system or software, is not the core topic of the study. As it was mentioned in the introduction, the researchers have been doing innovation development in parallel to conducting the study. However, at this point data collection focused on tracking credit accumulation.

As stated previously, European wide studies indicate, tracking student progress has been seen crucial in order to explore student retention especially in the first year, but also to spot dropouts. This, as the research claims, has been achieved by examining administrative data, i.e. student records and surveys (especially on dropout). These activities are referred to as “early alert initiatives” (Gaebel et al. 2012, 35). At the Oulu University of Applied Sciences, when a student decides to resign, the reasons for it are being asked in a form of “Resignation announcement”. If student is informing his/her resignation or cease of studies face to face in the student services, the staff usually asks the reasons for it also orally. When, however, a student ceases studies without a notice, it is difficult to detect these cases. Thus, following study progress and credit accumulation is essential. In OSAO in the case of student resignation, the process is similar compared to Oamk, the aim is to discuss those issues affecting the decision to resign would be first with a study counsellor and tutor teacher. As in OSAO many of the students are minors, the matter of resignation must be also discussed and agreed with student’s guardians. In addition, the Youth and Student Welfare laws obligate education institutions to inform the authorities in cases where a student interrupts one’s studies (Juutilainen & Rätty 2017, 75). Then the guidance and counseling responsibility is extended.

Credit accumulation, the tools used to follow study progress and the relation of guidance and counseling to it has been addressed by other researchers in Finland. Previous studies on the student data management systems called Peppi and Wilma have been conducted, but from the different viewpoints. For example, Aumo & Veijanen (2011) and Kemppainen (2018) have studied the deployment of Wilma and Peppi in education institutions. Wilma has interested many researchers from the communication point of view. Karppanen & Töllinen (2019) have studied Wilma-system both as a communication channel between school and home and as a teacher’s tool. Saarijärvi (2017) made a study of teachers’ perceptions of Wilma as a communication tool. Louhija (2017) collected discourses on Wilma from the teachers’ and parents’ discussions. Limingoja (2017) studied how Peppi meets the requirements for managing and monitoring human resources. Usability of Wilma-system has been studied also. Heiniö-Silfergren (2017) made a research survey for the parents of primary- and secondary school pupils about Wilma user experience. Elomaa (2017) on her behalf has studied the usability of Wilma mobile application.

Tracking study progress by using student data management -and learning management systems (LMS) has not been researched in a similar way. As seen on previous studies for example, Limingoja (2017) studied Peppi from the human resources point of view, whereas in this research the focus is on students' and teachers' accounts of Peppi as a tracking studies tool. Similarly, the Wilma system has been studied from a communications perspective, but this research focuses on its suitability as a tool for following credit accumulation. Thus, there is a limitation of using the results in a wider context such as in a comparative research between other higher education and vocational institutions in Finland. There are however studies providing useful insight to this research when talking about the meaning of counselling and guidance to students' study progress. For example, an article of Skaniakos et al. (2018) describe the students' experiences of guidance and the relation of these to their learning outcomes and credit accumulation. The results indicated that the more guidance students received, the more their studies proceeded. This research was done at the University of Jyväskylä from a vast quantitative survey data collected from the university's own students. Even though this research omits the tools or systems used for tracking study progress, it is useful in the more in-depth discussion on how Oamk and OSAO students and guidance and counseling staff of this research perceive that process and the meaning of it and what are their accounts towards the tools used in following study progress.

Many research methods were utilized to gain as valid and reliable data as possible. However, the researchers recognized some limitations of this study. One of them concerned the students participating in the research. Most of the respondents were in their first study year. The survey was conducted in spring 2019, so the first-year students had been studying only for 7 -10 months and at this point of studies, they only possess a short period of experience in tracking their study progress. To make the data more reliable, it would have been important to get more senior students involved into the research. First year students may have a different stance on study progress than the 2nd or 3rd year students, not to mention those on the verge of graduation. There is also room for doubt about students' accessibility. Those students who are in general reluctant to participate in study information sessions and tutoring meetings may be also those who left themselves outside the survey for this research. Thus, the realistic number of students who are not actively following their study progress might be bigger, if the entire student population of Oamk and OSAO would have taken part into the student survey for this research. There are studies and guidance and

counseling teachers' responses backing up this assumption (see Skaniakos et al. 2018, 205 and this research pages 44 and 55).

A similar kind of imbalance of the participants can be noted about the co-creation workshop. Even though the workshop did make up with the lack of vocational students' participation, it would have been beneficial to conduct also at Oamk, in order to gain higher education institution students' development ideas for a new tool to track study progress. There was also a question of a possible researcher bias. The researchers are working in the institutions involved in this study thus are previously aware of the guidance and counseling staff and their ways of working. There is a risk of interviewer and response biases when collecting data by interviewing familiar colleagues. Acquaintanceship may have an effect on the respondents' answers (see Shah 2019, cited 27.2.2019). The researchers were aware of the possible bias when conducting the research. Therefore, interviews were planned well ahead, and the manuscript was followed duly during the interviews. This way, the respondents are not led to give the answers they think are expected of them.

2 THEORY FRAMEWORK

The following chart demonstrates the guidance path and tracking study progress under guidance and counseling of learning and studying. This study focuses on the methodical part of counselling.

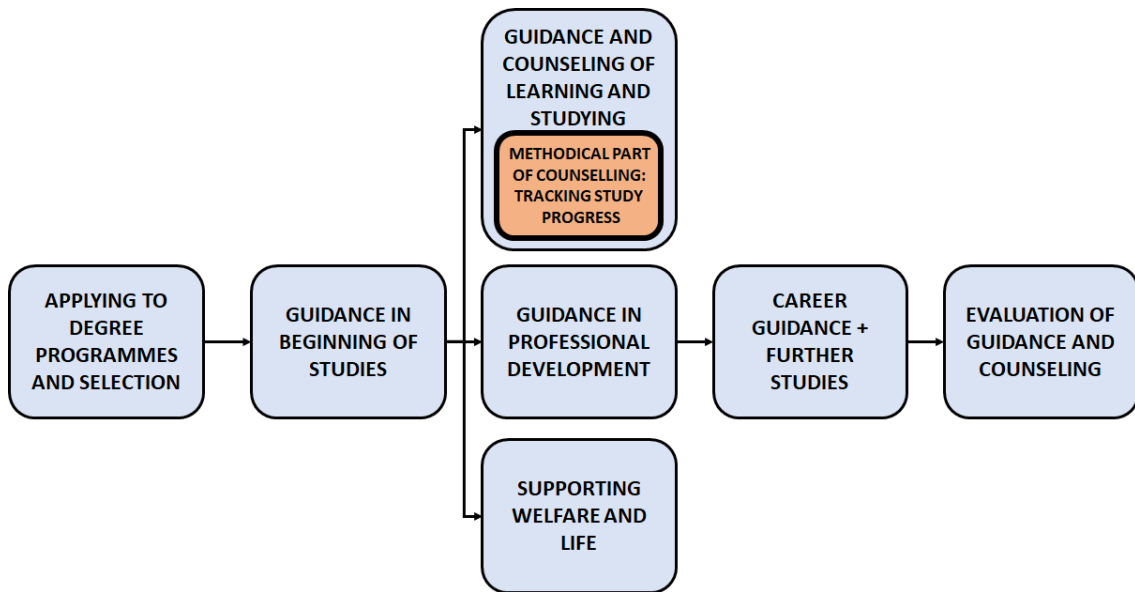


Figure 2. Tracking study progress as a part of the guidance path. Chart created by the researchers. Modified from OSAO (2016, 5).

This part of the counselling outlines how different tools and methods are being utilized in the counselling process. Methodical part contains for example the physical learning environment, i.e. the school premises, and the technology used in student guidance (Vuorinen et al. 2005, 57-58). In this research, the methodical part is the tracking credit accumulation with the student data - and learning management systems. The following research explores a small, but important part of student counselling and guidance processes. The informal discussion with the counseling staff intertwined various viewpoints of the topic: how the tools are being used and utilized in tracking studies currently, how they facilitate or hinder the process, how students' commitment and self-guidance are present in the study tracking process and how do they affect it, and how they could be improved in a way that they could detect or alarm when students are about to drop out from studies and "vanish into the system".

In order to understand the bigger picture, the context where following study progress takes place, it is important to understand through a holistic study of the counseling and guidance scheme and observe where tracking credit accumulation fits. Another issue requiring exploration are the tools used in student data management and their impact on following study progress. Because students are the other group of end users of the student data management tools and the receivers of study counseling and guidance, it is justified to study and discuss about student motivation and dedication towards their own studies, specifically relative to tracking credit accumulation.

2.1 Holistic guidance counselling

Guidance carried out in school organizations can be divided into three elements: educational, reflective and welfare, which form a holistic model for guidance counselling. The holistic model is aimed to serve across all levels of education and training, and throughout the employment administration and youth guidance services. Thus, in Finland, the direction has been towards a coherent and holistic lifelong guidance system in recent years (Euroguidance 2019, cited 2.1.2020).

The first, educational element includes both guiding the learning process as well as support for personal and social development and growth of a student. It includes guidance in the curriculum, but also a wider field of affective education or education for the emotions. The framework consists of personal, vocational and educational guidance, and is related to different needs and ages of students. The educative element includes helping the students in developing their personal and social skills, i.e. the skills of listening and appropriate responding to others as well as expressing feelings and opinions. Students need support, especially in periods of transition such as entering a new school and starting new courses. Therefore, support needs to be offered in an organized fashion and have a curricular element. Guidance needs to be planned in the form of a program instead of just a collection of one-off events. There are also other elements of the educative function that have to do with a way such guidance programs are delivered, not to forget also the context and process of learning. When thinking of guidance policy formation, the curriculum content and delivery need to be coordinated. It includes both examining the context of learning as well as ensuring that teacher development is addressed in these areas (McLaughlin 1998, 132-133).

The second, reflective element, means that emphasis is put towards personal and social growth, and that psychological wellbeing is enabled and actualized. Schools can have a substantial impact on psychological development both in the present and also in the future, therefore the role of guidance is to promote both healthy institutions and students. From guidance counselling point of view, it is expected that good and supportive study and learning culture is promoted in the school organization. Goal is to have an environment where everyone should be involved and valued. When thinking of guidance, the goal would be an a more proactive and wide-ranging approach, one which includes all in the school community and concentrates rather on creating positive behavior instead of focusing on problem behavior. Exploring the responsibility areas of management are also in the scope when thinking of the health of an institution. The health of adults should also be of importance. Teacher stress calls for guidance for staff. However, in the case of offering one-to-one problem-solving methods, it might exclude the debate of wider issues, for example supporting staff in their professional roles and work (McLaughlin 1998, 133-134).

The third element, welfare, points out that everyone in school staff share the responsibility of attending to students' wellbeing. It is the priority of the holistic guidance counselling model to ensure that every student receive the support they need. The welfare element includes a wide range of activities when thinking of counselling. This includes aiding students in decision-making and problem solving. The support for students in a constructive manner in difficult times is important. It should be possible to monitor and detect students under risk and to be able to react accordingly. Also coordinating the work both within and outside of school is of importance. (McLaughlin 1998, 134-135).

These guidance activities require many different skills and abilities. The parties involved should also be able to distinguish between different guidance activities. The different types of interventions between the party giving the guidance and the one receiving the guidance can be divided into authoritative and facilitative both including different categories. The authoritative ones such as prescriptive and interventive interventions are usually more hierarchical whereas facilitative interventions such as supportive and catalytic are less hierarchical. There should also be some principles that help in distinguishing counselling from other activities in school. A student needs to be aware when counselling is occurring; it needs to be transparent and voluntary. Counselling does not need to be always student initiated, but it should be invitational in nature. The student's need

is the top priority and counselling should aim in empowering the student at the same time developing a sense of control and autonomy. Counselling should happen in a respectful, genuine and empathic setting (McLaughlin 1998, 134-135).

Watts and Esbroeck (2000) have introduced the three-in-line model for guidance which lays out the common principle that every teacher is responsible for guidance. The expertise of guidance counselling in this model is shared into different levels in order to meet the guidance needs and expectations of students. Different areas of student's life are recognized, and attention is given to these areas in the holistic model for guidance.

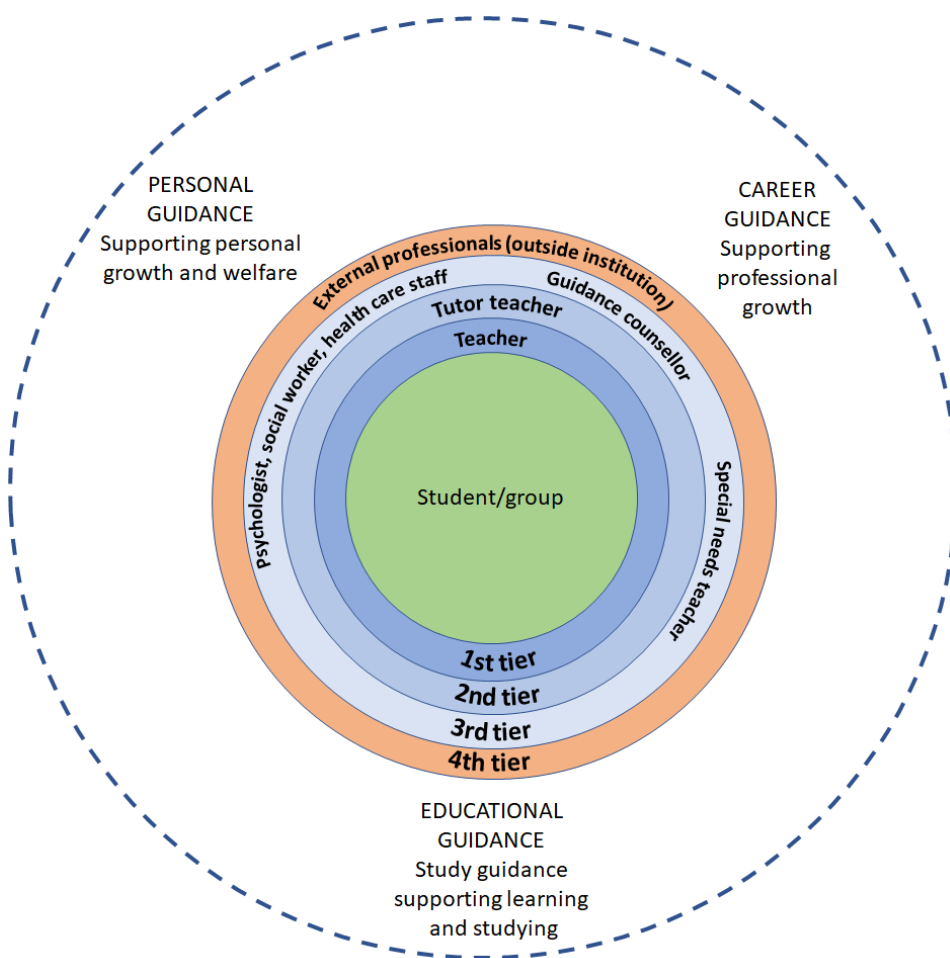


Figure 3. The holistic model of guidance and counseling (modified by the researchers from Watts & Esbroeck 2000, Juutilainen & Rätty 2017, 78 and Oamk 2016, 8, cited 22.8.2019)

In the holistic model, the student is at the center of support, and tiers 1-3 of support are inside the school. Tier 4 of support takes place outside of school. Educational guidance can be given by professionals inside of school whereas personal guidance and career counselling can be given by both internal and external professionals. This kind of layered holistic approach for guidance can be found from other researchers' work. McLaughlin (1998, 135-136) defines guidance and counseling in three levels: immediate, intermediate and specialist level. In immediate level counselling work is for all teachers and it includes the awareness of what counselling is. In the intermediate level, the education institution should provide continuity in care and concern. Systems acting as early warnings for students needing counselling and guidance should be established and operated in this level. The third, specialist level, includes services that require special training, and these can also reside outside of school. This level would also include identifying students needing this level of services. Services can be provided for both individuals and groups. (McLaughlin 1998, 135-136).

While studying the guidelines of guidance in both Oamk and OSAO the researchers found out the holistic model of guidance is in use in both education organizations. The holistic model for guidance counselling is the basis for goals of guidance, services provided and methods in use. It also includes description of the parties responsible and resources for guidance. It describes how guidance is provided along students' study path and includes also how guidance is evaluated and developed (Oamk 2016, cited 22.8.2019 & OSAO 2016, cited 22.8.2019).

Guidance for studies has a pivotal effect on the efficiency of study progress (see Skaniakos 2018, 214, Hailikari & Parpala 2014, 819-820, cited 20.20.2020). Active guidance prevents alienation from and discontinuity of studies. It also expedites the progress of studies in planned schedule. Skaniakos et al. (2018, 205) have noted from studies related to the connection between guidance and student's study progress, that those who have received extra guidance during their first year of studies became more motivated and self-regulated. They also had less problems with their studies compared to those who didn't receive extra guidance. Guidance is strongly related to study progress, and from the research by Skaniakos et al. (2018, 2014), this became evident based on their research data: guidance does matter. The more satisfied students were with the guidance, the better they progressed in their studies and the better they gained learning outcomes.

The following table illustrates the tiers from 1-3 of the holistic model, combining trends and transformations for different phases in the student study path (Watts & Esbroeck 2000, 177). Columns in gray color illustrate the Watts & Esbroeck layered model. The columns in pink color give a graphic example of the duties and the responsible parties of guidance and counseling in OSAO and Oamk (OSAO 2016, 8-10, 21-26, cited 22.8.2019 & Oamk 2016, 8-10, 13-15, cited 22.8.2019). It is characteristic for the holistic model that all school personnel take part in guidance work while the approach for guidance is a layered solution. Also, different levels of guidance expertise are required: students have different needs and based on them the level of guidance is selected (Juutilainen & Rätty 2017, 26-27).

Table 1. Tasks, duties and responsible parties in different guidance and counseling phases and their benefits. Table created by the researchers.

Attention to guidance and counselling in study phases	Parties involved with guidance and counseling	Tasks/duties	Effects/benefits
Pre-entry	Admission services Campus and study counselors	Informing (students and parents in vocational level) Marketing study selection and possibilities, recruiting new students Career guidance and counseling in student selection Evaluating and developing study guidance, supporting others in the guidance work	Increases access to education Helps students in finding courses that suit their aptitudes interest, thus increasing chances of success.
Entering studies	Student services Teachers Tutor teachers Tutor students Heads of the degree programmes Campus and study counselors Special needs teachers	Engagement and orientation Grouping students and group guidance Personal Study Plan (PSP) supporting the personal growth, development and commitment of students Special guidance when a risk of dropouts Informing about optional studies (i.e. open university, studies abroad)	Reduced chances of early drop-out Enables students to engage more quickly to effective learning Teachers are expected to react immediately on neglect, problems and difficulties and discuss with the student about the progress of studies and issues affecting them.
During studies	Teachers Tutor teachers Tutor students Heads of the degree programmes Training supervisors and workplace counselors	Following the realization of PSP and updating it in guidance discussions Career planning Accrediting optional studies Informing about further studies Developing working skills Guiding and following students study progress Grading performances, placing the grades into the student data management systems and giving feedback Forward information to study counsellors and student welfare services about any difficulties detected in studies	Prevents drop-outs due to learning or personal problems by removing of obstacles, that might cause absences, learning difficulties and lack of motivation Enables students to take advantage on any greater flexibility in curriculum Attending to learning possibilities that enhance their employability
On exit	Career counselors Study counselors	Guidance when graduating and transferring to the working life Guidance on further studies and career counseling	Helps in making effective transitions to labour market Maximising the economic yield for public investment in higher education

The table demonstrates the holistic model at OSAO and Oamk. This model is typical for Northern European countries, where in general the guidance and counseling services are more established (cf. Watts & Esbroeck 2000, 180). There are however differences in the key areas of guidance and counseling globally, which are discussed in the next chapter.

2.1.1 Trends and methods for guidance

Studies have been conducted within the European Union, in which the trends and focuses of guidance and counseling development have been outlined (Watts & Esbroeck 2000, 179-180, Grasso et al. 2015, 207, cited 17.2.2020). Following area specific conclusions on guidance and counseling came up from the studies.

One of the highest growing areas in guidance and counselling in the early 2000's was the specialist career services. These services had traditionally been well established in the UK and Ireland, whereas in other European countries they were less developed. Grasso et al. (2005, 207, cited 17.2.2020) suggest the following points about counselling across Europe. Public employment services have played a crucial role in Germany, Austria and Italy when thinking of placing higher education students into jobs. In many European countries, the psychological counselling services have been well developed, ranging for the services offered by institutions themselves to services offered by communities, especially in Denmark and Austria. In Finnish higher education institutions, study psychologist services are offered by the universities whereas on vocational side, psychological services are arranged by the community. Northern European countries were the ones with more strongly established guidance and counselling services, but many southern countries such as Italy and Spain were rapidly developing them. In a more recent research (Grasso et al. 2015, 207, cited 17.2.2020) this development can be noticed. In Italy, for example, higher education institutions have invested heavily in guidance and counseling services even though they do not have a national model of guidance and counseling, nor an updated legislation.

Methods for guidance vary according to the trends and on the other hand, by the way the guidance is offered to students. The methods used in implementing guidance for learning and studying, for professional growth and career planning, and supporting personal growth and wellbeing include:

- supporting exploratory and improving learning
- promoting cooperation, grouping and engaging students
- personalizing studies and recognition of prior and existing competence
- motivating; and
- proactive tracking of study progress and immediate intervention in case of delays with studies (Oamk 2016, 4, cited 22.8.2019).

Guidance can be given for example individually, in groups, and online. In personal discussions, the importance lies in giving time and attention to a student in a respectful way. Personal guidance is usually given when a student seeks for guidance in a self-directed way. Guidance can be given in a single session or multiple sessions, depending on the need. First session usually includes evaluating the guidance needs and goals together with the student. Personal guidance is a goal-oriented process where small steps are taken in supporting the student to find his/her own solutions (Oamk 2016, 6, cited 22.8.2019 & OSAO 2016,14-15, cited 22.8.2019).

Group guidance is informative by nature, supporting both personal and professional growth. It can be carried out with a study-group method, which means a group formed for supporting, alleviating and strengthening learning. Usually a study group is formed for a longer period of time. These groups can also meet independently outside class schedules. This supports students' need for forming groups as well as strengthening the independent working as part of their studies. Study group as a method also includes the selection of the group leader who works as a link between students and teacher. The topic handled in the group can include questions related the specific courses but also questions related to wider topics such as studying in general, work practice and employment issues. Also software and systems used in studies and personal study plans can be discussed (Oamk 2016, 6-7, cited 22.8.2019 & OSAO 2016, 15, cited 22.8.2019)

In OSAO the student is responsible of her/his own studies and seeking the guidance needed. Each student has a right to receive teaching and guidance that enables reaching the learning goals and professional requirements set in curriculum. There is a lot of variation on student's self-guidance, i.e. how they seek guidance during the studies. Therefore, study counselling and other pedagogical

support is given in an active, diverse, multidisciplinary and professional way (OSAO 2016, 7, cited 22.8.2019).

Students receive guidance from tutor teachers 1-2 times per year. Study counselors offer counseling when needed, so there is specific guidance available for students whose studies are not progressing as planned. When psychological counseling is needed, the frequency in goal-oriented counseling is 1-5 times (Oamk 2016, 9, cited 22.8.2019). In general, guidance can be given both in smaller groups as well as individually. In addition to face to face meetings, guidance can be given online by using real time systems such as Adobe Connect and Skype but also by using learning management systems and forums such as Moodle. Social media platforms are also used for guidance, information sharing and study counselling.

In Oamk the official channels for information sharing and guidance are student intranet Oiva, personnel intranet Heimo, alumni intranet Aimo, Moodle learning management system and e-mail. A personal study plan is created and stored online in the online system - Peppi. This include also the options for approving and commenting on the study plans online. Materials supporting the studies is provided in school web pages (Oamk 2016, cited 22.8.2019). In OSAO, online guidance is given individually and as group guidance. Tools used for online guidance include schools web pages, student data management system Wilma, e-mail as well as social media services and learning management systems (OSAO 2016, 8, cited 22.8.2019). The next chapter goes into these online and digital guidance tools in more detail specifically when referring to the tools for tracking students' study progress.

2.2 Digital tools for guidance

Tracking study progress in Finland is nowadays generally done through a student data management systems such as Oodi (used in 9 universities, Lotz, M 2016), Peppi (used in 21 universities of applied sciences and in 10 universities, Peppi, 2019b, cited 6.10.2019) or Wilma (used in about 30 vocational schools in Finland). The main systems at Oamk are Peppi, for student data management, and Moodle, for learning management. Peppi is an integrated system, built by Serviced Oriented Architecture (SOA) – methods. It supports the processes of teaching and

education related tasks by combining students', teachers' and administrators' data under the same system integral (Peppi 2019a, cited 6.10.2019). Moodle is an open source learning platform used widely across the world, including several Finnish education institutions. There are other data systems supporting students' and teachers' information storage, communication and data sharing such as Microsoft 365 for email and data storage and sharing, Microsoft Teams for teamwork, Oamk intranet and an electronic study guide.

The main electronic student data management systems at OSAO are Wilma and Moodle. Wilma is a part of an integrated system called Visma InSchool, developed by the software company Visma. Wilma is a web-based interface which mirrors the information from Primus and Kurre systems. Primus is the register where the administration and the teachers save all their daily work and planning. It holds data of the students, teachers and staff. It also holds data on courses, selections, grades, certificates, statistics and so on. Kurre is the system for creating schedules, planning and keeping track of teachers' and students' work hours. Kurre is integrated with Primus. (Visma 2020, cited 11.1.2020).

In Wilma, different kinds of data are mirrored, such as personal data, schedules, attendance and messages. Data that is registered through Wilma are saved then in Primus and Kurre systems. Students, guardians, teachers and the administration all can use Wilma, and every school can also customize what information is shown and when. (Visma 2020, cited 11.1.2020).

Other data systems in use supporting students' and teachers' information storage, communication and data sharing are Microsoft 365 for email and data storage and sharing, Microsoft Teams for teamwork and the OSAO intranet for personnel.

Student data management systems are broad in a sense that they are designed for multiple purposes such as for planning studies, registration and enrollments, data storage and following personal study progress. Currently used solutions for tracking study progress indicate that the systems are not solely designed for following credit accumulation, but for many different functions as mentioned earlier. Besides the student data management systems, education institutions' learning management systems also contain information on study progress on course level, thus

the data is scattered requiring manual work to compile information on students' current study progress.

This is not a phenomenon only in Finnish education context, but also recognized for example in USA. A questionnaire for over 1000 college students revealed that students do expect institutions to be advanced in technology usage, but also offer personalized solutions to student data management in the areas of career preparation, student life including finance and housing, and academic support, such as course registration and grade tracking. However, from the student population participating into the questionnaire, about 42% did mention that there are too many platforms in use requiring log in several times and finding the scattered information. Even though 85% of the respondent did have a centralized apps in use, 64% of them viewed that the information flow in them was overwhelming (Cortez 2017, cited 23.10.2019).

As noted, student data management systems Peppi and Wilma are used for administrative matters such as grading, scheduling, data storage amongst others, but it is used also as a means of communication and reporting between the education institution and home, and between the teacher and the student. Perceived challenges with using online systems show categorizing youngsters: some teachers only report the negatives about the students, which can label the student in a harmful way. Wilma has been nicknamed as the "criminal records for adolescents" (see Heimo et al. 2016). It either strengthen or weaken young people's self-esteem, as noted by a researcher Anu Alanko, who made a study on Wilma's effects on the lower secondary school children (Köngäs P 2019, cited 11.1.2020).

Researchers Sanna Oinas and Anne-Mari Kuusimäki have made a study on negative connotations about the system. Their data did not reinforce all the negative anecdotes they had heard from fellow educators, but the research did show that Wilma-markings and notions were not equally encouraging for every student. Male students received three times more negative feedback than female students, thus the amount of positive feedback was equal. Oinas states that positive feedback also through Wilma would have notable beneficial effects on learning and the whole wellbeing of students (Manner 2018, cited 11.1.2020). The cities of Helsinki and Vantaa are planning to give up Wilma (Malminen 2019, cited 11.1.2020). The reasons are that they are willing to create a system, where the child would stay for the entire education path from early childhood to

upper secondary level (Malminen 2019, cited 11.1.2020). It is obvious that digital tools are needed within education as a methodical means of guidance. The problem of dispersed data have been noticed within the global EdTech scene: improving student data management plays an important role. Student data management systems can facilitate the student journey when data analytics can be used in improving student outcomes and retention. Data needs to be provided for informing decisions and improving student success. Fragmented data collection is something the education institutions are challenged with. Dispersed data in various systems makes tracking study progress difficult and laborious. Therefore, the data should be captured and unified from class management, attendance, enrolment and grades combining the data about learning behaviors and engagement from the Learning Management Systems (LMS) or digital courseware (Navitas Ventures 2019, cited 21.01.2020).

With student data management systems, the key theme is student success, meaning how to improve student retention and graduation rates. There are ways to improve this, for example by using predictive analysis and/or aggregate data (Moore & Schulock 2009, 12). This helps in identifying students with possible academic or financial troubles, and then referring them to the correct advisor. One trend in student data management can also be seen in unifying the existing solutions instead of displacing or replacing them. Companies developing these systems are taking data-centric approaches which enable integrating multiple sources of information. This would help in connecting and unifying diverse systems of record and would enable more precise interventions as well as outreach (Navitas Ventures 2019, cited 21.01.2020).

3 RESEARCH STUDY

This study involves two education institutions – the Oulu University of Applied Sciences and Oulu Vocational College - and their students, staff and systems related to study data. The researchers are currently employed by these institutions, and the initial impetus stemmed from the notion that in both institutions, the study data tools used were ill-suited in tracking studies and resource consuming.

Previous studies have been conducted on the importance of guidance and counseling to students' study progress and success (see Skaniakos et al. 2018). There are also studies where the focus has been on the impeding or enhancing factors influencing students' study progress (cf. Hailikari & Parpala 2014, 813, Moore & Schulock 2009, cited 20.2.2020). The students' and guidance staff perceptions on tracking studies as a part of the counseling and guiding process as in this research has not been studied, but the previous studies do provide background to this study. One of the key previous studies is a follow-up on the study counseling and guidance by Finnish Education Evaluation Center (see Vuorinen et al. 2005). Another is the TRACKIT – project publication concerning students' progression paths, which also provided validation to the primary materials (see Gaebel et al. 2012). The recent publications were related to guidance and counseling processes, their impact on credit accumulation and study progress, which form basis for the research: tracking study progress and following credit accumulation is a methodical part of the guidance thus making it essential in understanding the bigger picture.

The following chapters consist of the presentations on the primary research data of this thesis. The primary material is composed of survey responses for Oamk and OSAO students, of the teachers' views received and recorded from their interviews and of observed user experiences in a form of co-operation workshop. These are presented by first describing the purpose, then how the methods were implemented, and lastly the findings that emerged.

3.1 Data collection

The data were collected by using three different methods suitable for this research. The purpose of the study was to find out how students perceived the process of tracking their own study progress and credit accumulation and how engaged they were into their studies. The aim was to collect data from two institutions, so a survey was selected as a means for data retrieval in order to easily obtain information from a large sample size of responses. The respondents of the survey were the students of OSAO and Oamk. Another purpose was to find out how teachers perceived the process of tracking their students' study progress and its meaning in guidance and counseling. Therefore, interviews were conducted with teaching staff at OSAO and Oamk, who are involved in guidance and counseling. In order to find out what could be an ideal way of tracking studies from a student viewpoint, a co-creation workshop for OSAO students was organized.

An internet survey was conducted between 19.2. – 5.6.2019. The questionnaire, made with Google Forms, was comprised of multiple choice-, linear scale and text-answer questions. The total amount of questions was 23. Only student's education institution and the level of class were asked as their background information (see appendix 1, questions 1 and 2). The following table 2 indicates the survey respondents' amount, school and class level.

Table 2. The study level of the respondents

Institution	Number of respondents	1st year students	2nd year students	3rd year students	4th and 5th year students
Oamk university of applied sciences	133 (54,5%)	82	23	20	8
OSAO vocational college	110 (45,5%)	69	33	6	2

Students were told that there was research approval from the involved institutions and answering was voluntary. It was indicated that the survey was part of the research study and the topic was also elaborated. There was no need for a separate signed consent due to the low risk for the

respondents caused by the participation. In addition, it was stated that their answers would be treated anonymously. When a student replied to the survey, the consent was assumed in that way.

In order to draw from multiple viewpoints, data was also collected from the guidance and counseling staff. Thus, semi-structured interviews were conducted between 21.5. - 11.6. 2019 and again between 27.11. 2019 and 18.-19.12.2019 face-to-face with 10 individuals whose work involved student counselling. The interviewees' fields of teaching were ICT and business administration. From the 10 participants, nine were group supervisors or tutor teachers and one study counsellor. Thus, the majority were teachers, whose duties include regular teaching and study counselling for one or more student groups. In OSAO they are referred to as group supervisors and in Oamk, they are tutor teachers. The researchers selected the range of interviewees with some who were novice teachers who just recently started their group supervising and also experienced teachers, who had been guiding and counseling groups for more than 5 years.

The interviews were recorded consent of the interviewees. The interviews were not transcribed, but an overview text of each were written down. These overviews are referred as text summaries from the purposes of this study. There were in total eight questions, which were used in formulating the main thematic categories for further analysis. These categories were labeled as tools, resources, challenges, ideal situation and risk students. From the transcripts, typical key words and concepts were coded with numbers and colors. The coding was done based on frequency thus the approach used was quantifying. There were a lot of repeated concepts and terms, emphasizing the significance of the messages. Another coding was done based on typicality or on the contrary, based on their unexpectedness (Saaranen-Kauppinen & Puusniekka 2006, cited 13.2.2020). There were few individual comments which were taken apart from the text summaries, because these represented aberrations worth discussing further. Text summaries were also coded by looking for causal chain of effects. After the coding, i.e. the key words, unexpected notions, repeated concepts and causal chain of effects were organized under each of the five labeled categories. Similar notions with the reference literature and other previous researches - and thematically equaled with the student survey responses - were coded from the transcripts. The figure 4 illustrates the analysis and the coding underneath one category labeled as "Resources". The numbers in the brackets indicate the frequency of the terms

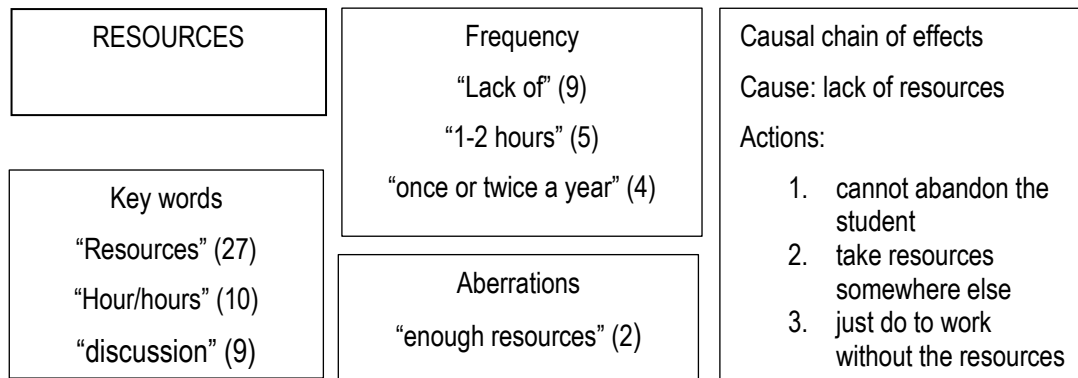


Figure 4. Analyzing interview transcripts; categories and codes, example "Resources"

After typifying and grouping the most relevant notions, interview recordings were listened again. The purpose of this step was to transcribe sentences encapsulating most repeated themes with the interviewee's own words. Coding the transcripts enabled the researchers to tie them with the data gathered from the student survey and link the relevant notions with the research literature. The interview data was compared with the survey data and the findings from the workshop were taken into examination when thematic similarities were noticed.

In addition to the survey and interviews, one workshop was held in order to gain more data on user experiences and innovative development ideas for improved tracking tools for study progress through focus groups. For this purpose, the researchers utilized service-design tool of co-creation. The workshop was held in OSAO, Kaukovainio Services unit on 24th April 2019. There were nineteen 2nd year business information technology students participating on the workshop. One reason for selecting the participants for the workshop was that these students were familiar with information technology, i.e. tools, systems and software due to their field of study. Also, the students were on their second year, so they had experience on tracking their study progress. The workshop was divided into two parts. During the first half, students were outlining the current way of tracking their study progress. They listed the benefits and the development points from a user viewpoint. They were free to elaborate the browser version of Wilma-tool and/or the mobile application of it. The second half was to co-design a rough prototype of an ideal system for following study progress from the user point of view (cf. Design research 2013, 36, cited 17.2.2020). The researchers documented the workshop by making own notes based on observing the groups and

by collecting students' tangible, visual designs. The next chapters go to these data collection methods in more detail and reveal the findings from the results.

3.2 Student questionnaire

The purpose of the questionnaire was to map out how students were following their studies, which tools they were using, how often and how they viewed the process. In addition, students answered questions about their study motivation, importance and self-guidance. The questions were designed to get answers to research questions and for collecting information on students' motivation and dedication towards their studies. Here are the survey questions in relation to the research questions.

Questions aimed to offer evidence for how students perceive the process of tracking their own study progress. In the questionnaire the participants replied included the questions such as what the benefits of the tools are used currently for tracking credit accumulation and how to improve them. Another question was for them to evaluate the difficulty of the process. Then they were asked to evaluate the usefulness of tools provided for tracking study progress. Students had to also consider if they felt that they manage study planning and follow-up and how motivated they were (See appendix 1, questions 6, 7, 10, 18, 19, 20).

Secondly, data was collected to uncover how study progress is shown in a student's study path (from the beginning of studies to the graduation) and on the other hand in study counseling. In the questionnaire, respondents had to list the tools used in following their study progress. They had to answer whether they were committed to their studies, were they concerned about their graduation or not. Their opinion on sufficient study counselling and guidance and trust towards it was also surveyed. (see appendix 1, questions 3, 4, 5, 12, 13, 15, 16, 17).

The third focus area for questions was about the significance of tracking studies in the bigger picture, as a part of the whole study path and guidance and counseling. In the questionnaire, students were asked how they in practice follow their study progress and about their interest towards how they proceed in their studies. They had to also reply to a question about their

engagement to planning and progressing their studies as scheduled studies (See appendix 1, questions 11, 14, 21, 22).

Researchers were additionally interested to know what the ideal way of tracking studies would be. Students were asked if they would be willing to take into use new applications for following study progress and personal study management and would they feel comfortable paying for it (see appendix 1, questions 8, 9, 23). Even though this aspect became secondary for the research itself, this was – as mentioned – aiming to help the future process of creating useful tools for tracking students' study progress.

3.2.1 Survey findings

There are several tools used in the education institutions for tracking the studies. Students were asked which of them they used in following their studies. Most of the respondents, 90.6%, mentioned Moodle as the source. Both institutions are using Moodle as the main learning management system containing courses, assignments and returns. Peppi and Wilma were the second used, both student data administration systems, 83.6% users. A bit over half of the respondents, 53.3 % are using mobile applications which retrieve data from student data administration systems. Small amount of the students mentioned Microsoft Teams, 8.2%. There were a small group of students who stated that they are not using any tools or use some other ones for tracking their studies.

Students listed benefits of these tools in an open question. Most of the respondents thought that the tools were easy to use, specially the mobile applications. One of the benefits was that weekly schedules were accessible. Moodle was mentioned handy in assignment returns and deadlines. Respondents also listed weaknesses of these tools. Even though clarity was mentioned as one of the benefits, 26,2 % of the students still thought that tools were complex. Not all were suitable for mobile use, and user interface not functional and intuitive enough. Wilma system's downtime was mentioned in several responses. Mobile versions were said to be only reduced versions of the web version. Some of the students stated that there were too many platforms, and single sign-on was missing. From the respondents, there were 9,7% who mentioned that Peppi system was cryptic

and unclear and partial credits were shown badly. The following quotations include suggestions from selected respondents how to develop the tools in relation to perceived faults.

A tool could have a visual diagram of study progress. (survey respondent #2)

Could Peppi suggest interesting courses for a student based on previously completed studies? (survey respondent #98)

Teachers don't know how to instruct students do a Personal Study Plan or in using Peppi in general. (survey respondent #87)

It would be easier to follow studies only from one place. (survey respondent #205)

Clearer view of the missing studies is needed. (survey respondent #163)

After survey respondents listed faults of the tools, they were asked would they be willing to use new applications concerning tracking studies. There were students, 15.6%, who were already using an application and were satisfied with it. The minority of the students 11.5% was not willing to start using any application. The majority, 73%, were already using an application, but interested in new alternatives, or would begin using a new application. However, it was very clear that they are not ready to pay for it: 90.2% responded that they would not pay for the application. Only a fraction of the students would be willing to pay for the application, 9.8%, from where half thought that the maximum sum would be 0,5€. This question stemmed from the researchers' interest when thinking of developing solutions for education technology industry.

In Finland, education itself is tuition free (Studyinfo.fi 2020, cited 13.1.2020). In vocational education some costs may be associated with study material and supplies, but these materials would then remain the student's property once their education is completed (Opetushallitus 2020, cited 13.1.2020). The idea of an application subject to a charge seems to be strange to the respondents. This suggests that students have grown up in a culture where studying is free. Taking the analysis further, it can be stated that all stakeholders in the education technology field face challenges when trying to sell their products directly to students in Finnish education institutions.

The rest of the questionnaire – 14 questions – involved personal viewpoints on study progress, guidance, motivation, study goals, workload and the importance of graduating on time. Most of the respondents, 80,7%, were following their studies. Students followed their progress weekly (43,4%) or less frequently (43,9%). Only 8,6% of the respondents followed the progress daily and 4,1% stated that they were not following their credit accumulation at all. Students seemed to be interested in their studies and thought that tracking their study progress was rather easy. Students, 80,3%, also felt that they are doing a lot for their studies. Graduating on time was viewed as important with 89,3% of the students being very positive response to the education institutions of Oamk and OSAO.

Even though the graduation in time was important, only 50% of the students had more precise goals in achieving certain amount of credits during the course of their studies. The reason behind this may come from the structure of studies and how they are marked in the systems. As an example, studies are nowadays in larger compilations (OSAO 20-30 credits, Oamk 15-30 credits (see examples from eRequirements 2020, cited 5.1.2020 and Oamk 2019b, cited 5.1.2020) taken more time to complete thus taken more time to get the credits into the systems and into the degrees. Therefore, it may be difficult for students to set monthly credit goals.

Many respondents, 62,1% felt that they receive enough study counselling from their tutor teacher. The number of students who viewed that their tutor teachers are giving them enough information on how their studies are progressing was less, 51,3%. It can be seen that some students who were happy with the guidance and counseling were not convinced that they get enough information on how their studies are proceeding. The reason behind this may be that 12,7% of the students were relying on their peer students and stated that they didn't their study progress at all, but trust that their classmates do. So, it was a positive finding from the responses was that students were indeed interested in their own study progress and not just followed their peers. Students themselves, 74,2%, wanted to know where they are at their studies without blindly relying on their friends. These responses show a high level of their motivation. Indeed, when asked, 81,1% of the students considered themselves as motivated. In addition, 68,4% of the respondents stated that planning their own studies was important for them.

Students were asked about the usefulness of the tools and systems their education institution provides to them for tracking and following their studies. Tools and systems were positively viewed by 75% of the respondents. There were quite a lot of improvement suggestions from the respondents concerning the tools, but systems may be viewed as useful even though they are in need of development.

Most of the students, 70% felt that they master their study planning and progress well. The rest of the students felt the opposite. These students reflected those in need of more counseling and the responses told the same. Students who had problems in mastering their studies also thought that they are not getting enough study counselling – the responses correlate.

Even though students seemed to be interested in planning their studies, were motivated and also able to master their studies, there are still more than one third who didn't seem to know the structure of their studies adequately. This finding again correlates with the link between the issue of study counselling and mastering one's own studies. Data showed that those students who struggled with the structure of their studies, felt the lack of guidance and that the studies were not in their control.

I am a transfer student and I have been left totally alone. I would have needed guidance from the teachers for example in selecting courses and such. In my previous education, the structure of the degree and the studies were very different. I have had to follow and master my studies fully independently. (survey respondent #99)

Lastly, the respondents were asked to view their study progress and tracking studies. Findings suggest that any diverging study path causes frustration to students as seen from the quote from one of these cases. These students felt that they were on their own, neither receiving support from their study counselors nor teachers. These cases were for example those students willing to graduate sooner than the standard study time, those who have been abroad as exchange students, transfer students from other institutions, students who are in their maternity leave in the middle of their studies, those struggling with health and/or welfare issues, students with different starting times of studies, and those in apprenticeships.

Especially, when deviating from the regular study path, for example due to exchange studies abroad, it is very difficult to know what I should study after it and how can I graduate on time (survey respondent #42)

3.3 Co-creation workshop for students

The objective for conducting a workshop was to gain prospective customer or end user insight and engage students in designing an ideal tool for tracking and managing studies. The workshop consisted of two parts. Firstly, students were divided into small three- four person groups and started to analyze the current situation by prompting them to think of what tools were used to follow studies, when this takes place, who are involved in the process and how it is experienced by them. Students listed positive and negative views and were asked to create a document out of their ideas. The idea of mapping out the current situation was to make students really think about the process itself and its functionality.

These same students took part in the questionnaire (see appendix 1) beforehand in March 2019, where they were asked about study progress and – management. Therefore – in the light of the information gathered from the questionnaire – it was of great interest to the researchers to hear students' opinions and discussions about the current process.

3.3.1 Workshop findings

A large majority of the students participating in the workshop stated that the current system Wilma does have problems in providing information on study progress. This came up when students evaluated the current situation. They struggled in finding the contents, such as study progress, from the system, when the researchers asked them to demonstrate Wilma. Other researcher was not familiar with the system thus genuinely interested and willing to see how it worked for the students in a real life. Based on students' group discussions, it was noted that students didn't really know the structure of their degree: they didn't see it clearly from Wilma indicating that the system is not supporting management of studies without understanding the structure of their study path.

These findings paralleled the results from the other collected data: the student survey and teachers' experiences. If students were expected to be independent and understand where they stand with their studies and engage with that process, findings suggested that the current system is inadequate. Those students who did not have enough knowledge of their degree structure, were much more dependent on their teachers, study counselors, and tutor teachers. This in turn may mean that guiding persons use the sparse counseling resources to compiling study data from the tools manually.

The second part of the workshop was an innovative process, where students had three hours for creating their versions of tools or software or applications for following their own study progress. They were asked to think about the empirical situations where they typically use the tools for following their study progress. From those scenarios, they were asked to develop and describe an ideal solution for how they could track their studies and master them. The students visualized their ideas by making a paper prototype by using pens, paper and post-it notes.

They were asked to think about the process itself, the tools used and their functionality. They utilized in their innovation process the current system's benefits and disadvantages, which they had written down and discussed about during the first half of the workshop. Three out of five groups of students wanted to improve the existing Wilma - tool and some thought about totally new types of platforms. This was visible from their paper prototypes and came out when they elaborated their innovations to the other participants of the workshop.

Students' creations for new system/tool were from the user point of view. For example, one group used their favorite topic, playing and gamification in their innovation. They figured that studies would be progressing better if they could receive rewards after completing courses or modules. The rest of the group agreed that it might help depending on the reward. One of the groups had an additional improvement to the current (or any) system: possibility to turn the software into a dark/night mode.

Furthermore, other visual features and personalization of the tool were discussed such as changing background colors, and fonts. Personalization of the tool wasn't considered as important, but visual design was. One group drew a graph about the visual look of how they could immediately view their study progress from one single bar.

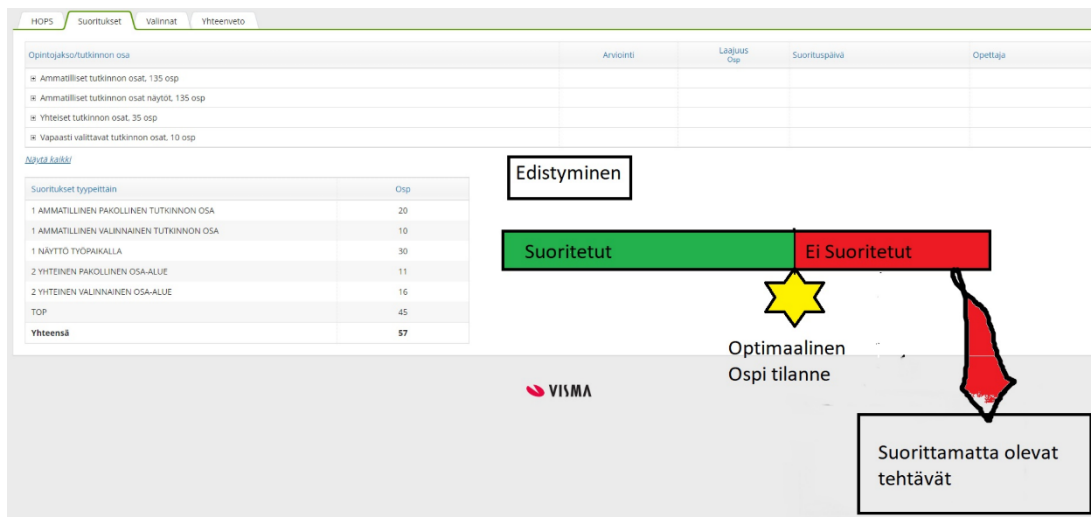


Figure 5. A stacked bar presenting study progress. The white box has a heading “study progress”. The green part of the stacked bar indicates the courses completed and the red one incomplete courses. The star would show the optimal real-time credit situation. The white box underneath the stacked bar would contain the tasks still undone. Co-creation workshop result 1, 24.4.2019.

Interestingly, students emphasized simplicity: they collectively agreed that Wilma is “very confusing”, “very difficult to use” and “complicated in seeing easily” where they are at their studies. One group created a totally new system with color coding and new layouts.

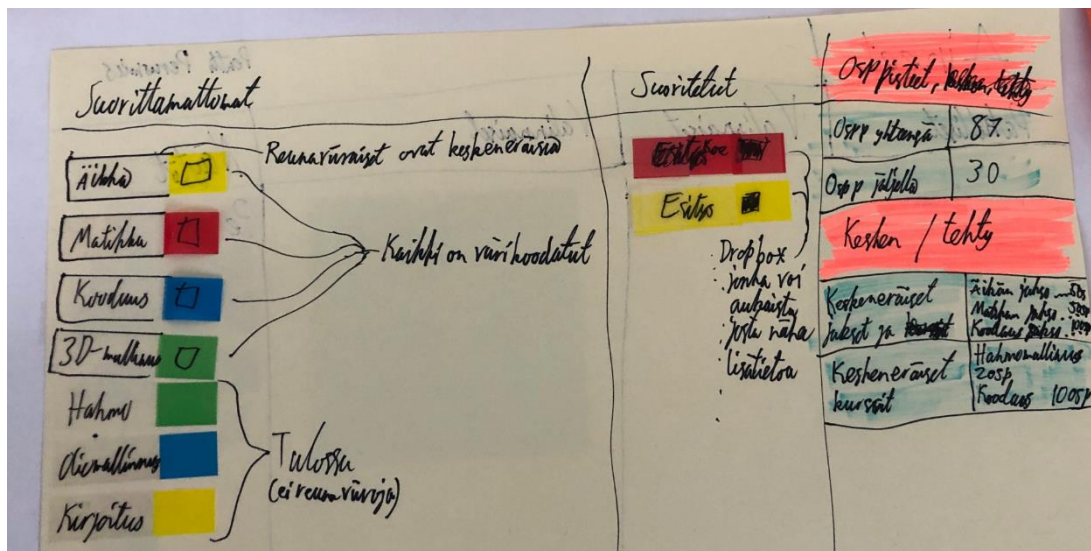


Figure 6. Another tool for following study progress. Color codes, boxes and numbers of credits indicate the real-time situation with the courses. Here for example upcoming courses would be marked with color coding and the manner of performance. Co-creation workshop result 2, 24.4.2019.

3.4 Study counseling and guiding staff members interviews

The purpose of the interviews was to gain in depth knowledge on following students' study progress from the counselling and guiding point of view. The researchers also wanted to test the suggestion that teachers viewed students as lacking responsibility and/or skills in following their own study progress. Interviewees were selected from both institutions. Purposely, they were selected from amongst those who have longer work career in teaching and guiding or counselling, i.e. more than 5 years of experience, but also amongst those, who have fresh outlook on the guidance and counseling work.

The interview approach was a semi-structured method. There were 8 questions from the same theme but from 4 different viewpoints (see appendix 2). As Savin-Baden & Tombs (2017, 160, cited 17.12.2020) state, this method enables covering multiple themes relevant to the study and comparing collected interview data. The researchers wanted to reserve room for additional

questions – when needed – depending on the responses of the interviewees. Therefore, semi-structured method was the most suitable one.

It is always crucial to protect the respondents' confidentiality and anonymity when conducting qualitative research (cf. Sieber & Tolich 1992, cited 13.12.2019). Because the number of interviewees is low, and the respondents work in two different organizations, there could be a danger in identifying persons. The researchers chose to omit the interviewees' personal data, such as sex and workplace, in order to protect their anonymity. The researchers also decided to use the term "tutor teacher" from all the participants to ensure the anonymity.

3.4.1 Interview findings

The findings from the data collected from the interviews are categorized by the following thematic viewpoints: current situation, resources for counselling, benefits and disadvantages and an ideal situation. The researchers divided the responses according to the institutions due to the tools used and terminology, which differ between OSAO and Oamk. Even this solution was made to maintain the names of the tools and the institution specific terminology; the anonymity of the interviewees still remains.

In OSAO, Wilma is the main tool currently used in following the studies. Other tools mentioned were Moodle and office 365 or others, such as Personal Study Plan done with MS Excel. Group supervisors and students both follow the study process and - progress via Wilma's electronic study plan. In Oamk, even though the tool is different, the situation is very similar: students and tutor teachers both look at the study progress via Peppi.

In both institutions, teachers of courses are responsible on marking the credits and grades to the tools Wilma and Peppi after completion of the course. However, some teachers ignore the deadlines for marking the grades and there are also variable ways in marking the information. This came up also in the student survey responses. Another common opinion amongst all the interviewees was that the current tools have flaws when talking about tracking the studies. They

are not designed for following study progress. One interviewee described the situation by stating that

Wilma is a complicated tool requiring a lot to compile study data. (Interview #3, 2019)

Resources for counselling were collectively seen by respondents as scarce, 8 out of 10 teachers shared this opinion. The number of hours for study counselling varies between the institutions from 1 to 2 hours per student per academic year. One of the interviewees even said that “the amount of resources doesn’t stand up to closer scrutiny” (Interview #2, 2019). One of the interviewees stated that current resources would be enough, if the only task would be following the study progress. However, the same person continued that “I’m a bit too conscientious; I want to know my students and want to offer the best for them” (Interview #7, 2019). Similar thoughts were shared by all the teachers who do study guidance as seen in the following quotations:

Regardless of the resources, study guidance must have been pursued anyways, at one’s own expenses! (Interview #4, 2019)

It is due to the teacher’s own activity how much resources are actually used for study guidance. (Interview #3, 2019)

Students also contact by email, but I am not counting them along with the resources. If a teacher would be cruel, he/she could just state to a student: your resources were used because you stood me up”. (Interview #6, 2019)

Resources are enough if a student is carefree (Interview #10, 2019)

The teachers participating in this research demonstrated a conscientious approach. They used this term describing themselves when talking about their guidance work. They feel that they take responsibility for their guidance and clearly want to do the job as well as possible regardless of the resources.

When talking about resources, the researchers came across a special case of a newcomer. This respondent – as 9 out of 10 of the interviewees, acts both as a teacher and as a tutor. It was clearly stated that a newcomer with full teaching hours simply just does not have enough time and

resources to get acquainted with the practices of “regular teaching” and guidance and counselling work.

Without any previous experience in teaching and guidance and counselling, the resources are way too little. The situation is very different compared to a teacher who already knows the processes (Interview #9, 2019)

The lack of resources wasn't the only challenge mentioned when discussing about tracking studies with the interviewees. Three other challenges were uncovered from the interviews: students' absences and irresponsibility, disregard of common, institutional ways of working, and unsuitability of the student data management systems Peppi and Wilma.

Interviewees, 8 of them, emphasized that students' absences make it difficult to keep track of where students truly are in their studies. The more students are absent, the more resources it requires from the teachers and study counselors to get a student back on track. What makes it even more difficult are those students having challenges who do not seek guidance in time. These are the ones in danger of dropping out of the system.

Most of the time goes to the challenging students; those who stay behind, those who are absent a lot, those who don't participate on information sessions or classes. (Interview #7, 2019)

Students who have problems are unfortunately not those who book guidance and counselling times from me. (Interview #10, 2019)

On the other hand, teachers were praising the active students, who themselves know exactly the current state of their studies. Not all the teachers shared the same opinion. One of the interviewees lamented that students just wait that the information is told to them, not bothering to follow the progress themselves.

The interviewees were also asked what steps are taken regarding the students who are spotted to be far behind in their studies. From the responses it is visible that the guidance and counselling complies with the holistic model. The immediate level counselling work includes teachers detecting challenges among the students and if found, reporting to other parties when appropriate (see page

19). In the interviews, the teachers described the process of further guidance. One of the interviewees explained that firstly, a new Personal Study Plan needs to be made in order to find out how to catch up with studies. If amendments to the degree itself are required, this plan will be agreed with the student's head of the degree program. If necessary, the student will be guided to meet with the study counsellor, and then to school social worker and study psychologist (Interview 7, 2019). These are representing the tiers 1-3 of support in the holistic model. In some cases, student healthcare may be involved, being the tier 4. (page 20, figure 3).

Together with the student we'll see how to go forward in case the student has the capacity. If not, depending on the situation, I will direct the student to see the study counsellor or if the situation is bad, then to study psychologist. (Interview #10, 2019).

When observing the process of guidance and counselling, based on the interviews it was clearly seen that the interviewees follow the processes meticulously (see page 24). However, interviewees state that not all of their colleagues abide by these institutional expectations. Students' survey responses contained similar notions. One of the interviewees claimed that if other teachers won't mark the study progress or the absence in the student data management system, it is impossible to notice if individual student's study progress starts to slow down. Another teacher claimed that there were too many ways to mark study progress into the system, which should be standardized, to find a consistent approach. Interestingly, some of the interviewees stated that there were no clear instructions inside the institutions how to mark the study progress including absences.

The third aspect - and one of the core interests of the researchers of this study - was the unsuitability of the student data management systems. As one of the interviewees stated:

When the tools are not in order from where the study progress could be seen instantly, a teacher needs to burrow into data, ask around, and think about where to find information. (Interview #5, 2019)

Another teacher saw that the tools are not supporting tracking students' studies, because tools are not designed for that purpose. Despite the institution and the system used, interviewee opinions were uniform in respect to the unfit tools:

Wilma is a complicated tool requiring a lot to compile study data. (Interview #3, 2019)

Peppi is actually pretty useful, when knowing how to use it. However, student view in it is complicated and confusing. Students would need more training how to use the tools. (Interview #7, 2019)

Wilma is vague – it should be designed better for the purpose. Also the student view is different than teachers' view – hard to see the real-time situation. (Interview #4, 2019).

The interviewees experienced challenges in keeping track of studies especially with big study modules and long-lasting courses. These courses might run for several periods which means that the credits and grades from those appear to student data management system only after a long period. The same applies when the study modules are large. Another problem with these large modules is that if one part is missing then the grading and credits of the module keep waiting for this missing part.

If a student has for example 40 credits when the amount should be closer to 60 credits, I cannot see if the entity is lacking only a few exams rather than larger parts of the module. (Interview #10, 2019).

Lastly, the interviewees were asked what the ideal situation would be concerning keeping track of studies. In all the interviews, the participants suggested improvements to the tools currently used and proposed new ideas to the systems, which would enhance their ability to follow students' study progress.

Few interviewees suggested that there should be a model or a something in the system for early intervention, meaning that those students whose studies are not progressing or who are frequently absent could be quickly noticed.

Tools would alert or inform, if a student would have too much absences/studies don't proceed. (Interviews #1 and #8, 2019)

Another improvement idea was that it should be possible to see the current situation in an understandable form for both student and teacher and those family members at home, who are involved in following students study progress. In an ideal situation, a teacher could see the progress of an individual student as well as the whole group's situation. One interviewee stated:

[study progress should be seen]...from one glance. A teacher could easily see what is missing, to whom the performance is missing, does the "course" continue, amongst other. (Interview #5 and #10, 2019)

There should be a one, common system that all teachers use and the tutor teacher could see how own students are doing instead of asking teachers individually. (Interview #9, 2019)

There should be a similar type of data available on group's study progress than there is on individual student's study progress (Interviews #5, #8 and #9, 2019)

Teachers also called for students' responsibility, activeness and initiative. They felt that students should have more interest towards their own studies and the progress.

Students would know themselves how to follow their studies – more responsibility to them. (Interview #4, 2019)

Ideally, when these active, self-guided students know where they are at their studies, the teachers could target their resources toward career guidance and personalized study paths instead of spending time digging out the situation from the student data management systems.

4 DISCUSSION

In this chapter, the following five key findings from the data are discussed in more detail..

- Students and teachers had contradictory views on the skills and motivation for tracking study progress.
- Tools used at the education institutions were not adequate for the purpose especially in cases of deviating study paths.
- There was a lack of coherence both in used systems and ways of working related to guidance and counseling.
- Teachers had sparse resources for the guidance and counseling
- Sparse resources had led to infrequent study progress follow-up which in turn challenged guidance and counseling work.

The catalyst for the research was fellow educators' doubts that students did not possess skills nor had motivation in managing their studies and tracking credit accumulation. This acted as a catalyst for the research. Similar kinds of anecdotes were heard from two education institutions in Oulu, Finland, thus prompting a closer study into causes of this suggestion. During informal conversations with teaching staff, the message was repeated. Some of the teachers, who provide student counselling and guidance, stated that students do not seem to have enough responsibility for their own study progress. Thus, it can be seen, that these teachers are doubtful about students' motivation, self-regulation skills and inability to make study plans. Teachers also felt that students lack skills in using the existing student data management systems. Clearly the teaching and counselling staff recognized the complexity of mastering the tools meant for following study progress or data.

Teachers responsible for student counselling were frustrated that they are losing valuable counselling and tutoring time using the platforms and tools to find out where exactly their students were in their studies. This very practical dilemma aroused the researchers' interest: how to ease the process of tracking where students are in their studies and save valuable resources for more

in-depth guidance. One of the reasons for the worry about resources stems from the fact that there is a pressure in shortening study times, i.e. get students graduating more efficiently and faster. New optimal study times were adopted based on the medium-term plan of Ministry of Education and Culture (see Opetusministeriö 2003, cited 28.2.2020 and Skaniakos et al. 2018, 203-204). This requirement together with an increasing student population has set challenges for guidance and counseling and increased the importance of tracking students' study progress. Two of the interviewees from the participating institutions of this research told that during the years, the number of students they are guiding as a group counselor has increased. The other one of them told that previously, about 15 years ago, the number of students in a group was about 25 and nowadays the groups have over 50 students. "There is of course turbulence within these first-year groups, students do drop out and quit their studies. However, I have always had more than one group for guidance and counseling" (Interview #7, 12.1.2020).

This research originally started from an idea of creating a tool for following study progress easily and engaging students into mastering their own study progress with the help of a new innovative software. As evident from the wide and versatile data research data and the results, a lot of interesting findings were brought to surface and revealed the complexity of the topic. The research questions were not only answered, but the findings from the data brought up critical points of attention and development to the participating education institutions to take into consideration especially on the guidance and counseling. The data also reinforces the importance tracking students' study progress. Five key findings which the researchers formulated from the survey responses, teachers' interviews and co-creation workshop observations are presented below.

The first key finding was that there seems to be a contradiction between the teacher's assumptions versus students' own experiences on tracking study progress. Here, the initial hypothesis that students don't have the skills to track their studies, is discredited. The second finding, and one of the most important ones, was that special cases require much more guidance and counselling and these groups of students have troubles in following their studies due to the different compilation of their study structure. Special cases are not actually even that special, but more and more common when looking at study paths nowadays. These cases require personalized study paths and guidance accordingly. Personalization of the study path is thus emphasized in today's education due to the recent developments in education policies and practices, which have created new

challenges for guidance and counseling. One of the reasons behind this is a new student population who are more heterogeneous than before (Skaniakos et al. 2018, 203).

The third finding was teachers' impression that the existing tools are not efficient and not designed for the purpose. This is related to the process of digitalization of education and administration. However, students' views were more positive toward the tools. The fourth finding was the teachers' feeling about lack of coherence in tools and system, rules and actions, which causes ambiguity in work ways. Even though there are numerous guides and instructions available in both researched institutions, teachers themselves claim that people are not following the guidelines or are not aware of them.

The fifth finding was that following students' study progress, as being only one part of the whole guidance and counseling process, is often infrequently done. This is due to the amount of annual or periodical guidance discussions with a student. The counseling guides of OSAO and Oamk do define the frequency of these discussions or follow-ups. In the guide of Oamk (2016, 15) is stated that the credit accumulation must be followed regularly at least once semiannually. The same sequence is mentioned in the OSAO guide: the checking to students Personal Study Plan will be done twice a year. In case the student's study progress is noted to be delayed, as stated in the guide, "his/her study progress will be supported and followed more efficiently by a named guidance and counseling person" (Oamk 2016, 15, cited 22.8.2019). These rules are found from the guidance and counseling guides, but the reality – according to the interviewed staff members of OSAO and Oamk – seems to be more complex. Notable variables are the persons responsible of the follow-ups and the guidance resources.

In the following sub-sections, each of these key findings from are discussed in more detail, since they can be utilized for the development and improvement of future guidance and counseling processes and in developing better tools for tracking students' studies.

4.1 Contradiction in students' and teachers' views on tracking study progress

Students and teachers seem to have a contradictory view on the motivation, willingness and skills for tracking students' study progress. What attracted the researchers towards the topic of the thesis

in the first place came from the teacher's irritation that students didn't seem to have enough responsibility of their own study progress nor skills in using the existing student data management systems for it. The survey data however showed that students did think that the tools were easy to use, especially the mobile applications – and in general around 80% thought that following study progress was rather easy (see pages 37-38).

Also, teachers assumed that students do not follow their credit accumulation regularly. When students were asked about their readiness, willingness and motivation towards tracking their study progress, most of the respondents, around 80%, replied that they are interested in following their studies. Only 4,1% of the respondents stated that they didn't follow their credit accumulation at all. In addition, over 80% of them felt that they are doing a lot for their studies. Obviously, when comparing the survey data to the interview data, the students' positive consideration of their own motivation doesn't show to the teachers. Thus, interpretations to the contradicting views on the skills, motivation and willingness to follow study progress are presented next.

In 2001, the Finnish Education Evaluation Centre (FINEEC), conducted an evaluation project on counselling and guidance in higher education institutions in Finland, where functionality of counselling and guidance were assessed according to students needs and demand. At the time, 25 institutions participated. In 2005, FINEEC continued the work by reporting a follow-up from those guidance practices (see Vuorinen, R & et al., 2005). It is somewhat surprising that the same types of issues still arise today, in 2019, reflecting the data from this research when looking at guidance and counselling holistically. In this follow-up, there was a contradiction spotted: teachers and students had very different ideas for what was hindering the study progress. Students see that the reasons are within the institutions such as lack of resources, overlapping timing of the courses, and the scarcity of new starting courses. Teachers see that the reasons are student oriented such as working during studies, relationships issues, health reasons among other personal life related issues. In this follow-up, the disparity of the views is explained by the suggestion that students and teachers' conceptions of guidance and counselling is very different: students do not perceive teachers' guidance as counselling (Vuorinen et al. 2005, 23).

Perhaps the reason for the differing view on how students and teachers see process of tracking studies, also stems from similar perspectives as Vuorinen et al. (2005) found. As outlined in the findings, two of the teachers did mention that students, who work alongside their studies, should concentrate on their studies rather than on the working life and reasoned the lack of motivation as

student related, whereas most of the students didn't mention any personal reasons behind it. Those students, who did have problems, connected them to the institutions and their working methods.

Another notion, which also relates to this contradiction, was that both parties, students and teachers, did suspect that their counterparts were not skillful in using the digital student data administration tools. So not only some of the teachers complained that students lack skills in using tools and systems, but also some of the student survey respondents had the same doubt about their teachers (see page 36). Functioning and purposeful digital tools are not enough to make an education institution truly digital, but the people using and developing the tools appropriately is also important. According to Valkendorff et al. (2017, cited 20.1.2020) students and staff members motivation and skills are crucial. There are differences in peoples' readiness in adopting digital (learning) environments. Even though there has been discussion about "diginatives", youngsters who are very skilled in using any digital tools, there are a lot of young people lacking basic digital skills. Valkendorff et al. (2017) continues that digital exclusion is a reality today: learning and adopting new and constantly changing environments may become a challenge which takes peoples' time and resources. Even though Valkendorff talks about youngsters, it could be argued that similar challenges are faced by adults and especially elderly people. Taken further, this might be a key reason for doubts concerning students and staff members abilities to track studies.

In addition to digital skills, there is the issue of engagement and responsibility of students. The guidance and counseling guidelines emphasize students' responsibility for their studies. It was evident in the research data that the students who were active, felt responsible, and motivated for tracking their personal study progress, had their lives and studies in order also in the interviewed teachers' minds. Here, it is evident, that student engagement is an instructional objective for educators of OSAO and Oamk. It is believed that student engagement leads to the improved learning outcomes: when students are eager to learn, inspired or interested in things, the results improve, and vice versa. Learning or other desired outcomes suffer when students are neutral, discontent, bored, or otherwise "disengaged" (The Glossary of Education Reform 2016, cited 20.1.2020). The research data from this study clearly reinforces the claim about student engagement. Some of the interviewed teachers were calling for it. On the other hand students who had clear study path and motivation in following their study progress, were more satisfied with the tools, the process, and indicated the importance of graduation and managing their studies (cf. McClenney 2007).

In addition, in both institutions the digital tools and environments were in place – at least according to most students' responses to facilitate the use of the tools for following study progress. It is important to notice at this point, that those students whose studies were proceeding according to plan, feel that the current tools do serve the purpose of following credit accumulation. Teachers assumed however, that there were also students who might not be able to properly use the tools or might lack motivation and interest towards it and underlined the students' responsibility to be up to date with what was going on with their studies. Interestingly, those students with deviating study paths were those, who were not that motivated in following their study progress either. The following chapter concentrates on these cases, which have proven to be the key findings of this research.

4.2 Special guidance and counselling cases

When it comes to guidance and counseling of students, it could be stated that the more homogenous the group of students, the more similar the guidance needs are and the ways of giving guidance. The data collected from the teachers' interviews supports this notion. Students entering vocational schools after secondary school have more similar backgrounds, i.e. they are of certain age, usually do not necessarily have prior experience from working life and are somewhat similar when it comes to their skillset and knowhow. With students entering universities of applied sciences after upper secondary or vocational schools this is also the case. The age division is somewhat similar as well as the ratio of students who have a job alongside their studies. (Hämäläinen 2018, cited 2.1.2020).

As more emphasis has been placed on personalized study paths for young students, the study paths usually are similar when studying a degree. With older students entering schools this might not be the case. There are students with different backgrounds and experience from working life and with previous degrees. In these cases, more differences are seen when creating personalized study path to them. It is also possible for example to include parts of earlier studies into the current degree and include also bigger parts of studies to the degree from other degrees.

What comes to other special cases, students might take part in for example lab studies, Terwa academy and other types of specialized studies. Terwa academy, established from 2015, for example is an option for business degree students concentrating on entrepreneurship and business

operations. Students study within their cooperatives, i.e. societies which they establish during their studies. They operate in them for 2,5 years learning teamwork, versatile business activities and create networks for their future businesses (Oamk 2019a). Some students might travel abroad for exchange periods. On the vocational side, these periods are usually shorter, but in the university of applied sciences students can spend a whole semester abroad. All these kinds of special cases bring challenges to mastering the study progress when compared to a “normal” study path.

These kinds of special cases require much more guidance and counselling, and students have trouble in following their studies due to the different compilation of their study structure. This is something that was visible in the student questionnaire results (see page 3.2.1): they felt that it is more difficult to get guidance. Students engagement lowered when they felt that they do not receive enough help from their counselling teachers. This has also been noted in other research; Vuorinen et al. (2005, 3) point out that there should be more focus in guidance and counselling to special students' guidance needs. When education institutions were monitored on the realization of guidance and counseling, the evidence indicated that more focused and detailed guidance was given to students who had absences (temporary cancellations, students returning from military service) and students who exceeded their study time. In higher education institutes it was acknowledged that finding these students with special guidance needs is a challenging task. Teachers interviewed to this research share the viewpoint with Vuorinen. They felt that these special cases did require a lot more resources, which they didn't have. Students – as stated earlier – lost their motivation even more.

When considering the guidance needs of students, continuous admission is also a factor that causes challenges in guidance and counselling. As it was stated in the interviews, it creates challenges when a student starts studies at a later stage compared to others. Tutor teachers must plan how to promote the studies completion and how a student can catch up with studies the others have already started. On the vocational side, continuous admission is however becoming the new norm along with personalized study paths. A lot of emphasis is put to personalized study paths but the current tools and systems are not yet supporting them fully.

In the personalization process in vocational studies, a personalized study path is planned and implemented for every student based on student's individual needs. Additionally, a student's prior

competence is identified and recognized and the ways for acquiring new competence are planned. The ways of demonstrating the new acquired competence are also planned. Student's current situation in life is taken into consideration when guidance and special support is planned.

Personalization is done in co-operation with the student, education organizer and workplace. Education providers are responsible for organizing this as well as planning the roles in the process, i.e. what are the responsibilities of teacher(s) in charge of degree and what are the responsibilities of study counsellors, special needs teachers and other representatives of education provider. Also, in case of minors, the student's parents or guardians have the possibility of taking part in planning and updating the personal plans (Opetushallitus 2019, cited 10.12.2019)

Personalization as a process begins when a student starts with studies. It continues throughout the entire study time and plans should be updated regularly. The setting of personal goals should be enabled for the student. Actions needed for acquiring the needed competence and the evaluation of it should be agreed upon. The process also involves agreed upon guidance and support measures needed in studies (Juutilainen & Rätty 2017, 79-80).

Personalized study paths as such is not a new phenomenon in higher education institutions in Finland, as they have existed earlier as well as the challenges related to them. Diverse and student-defined study paths require more and more effort for personal guidance of students. Readiness for self-guidance is needed from students. In addition to study guidance provided, guidance for professional and personal growth is also expected (Vuorinen et al. 2005, 12)

More focused and detailed guidance needs to be given to students with longer absences, the ones returning from military service and those who have exceeded their study time. In higher education there is a challenge to find these cases requiring special attention from a large student mass (Vuorinen et al. 2005, 24.) Absences of students also consume the precious guidance resources. Teachers stated in the interviews, that absent students needed to be informed and guided on issues that were told to other students who were present in guiding sessions. It was also mentioned that even when guidance resource run out, the guidance is still given to a student (see page 43).

Guidance arrangements primarily support the more active students. Challenges lie in the students who cannot be reached via normal ways of communication. These students do not participate in teaching and guidance sessions. According to Vuorinen et al. (2005, 23) they might be planning on not completing their studies and are perhaps wondering what to do with their lives. They are questioning why they even applied for the study program they are currently in.

4.3 Deficient tools for following study progress

Considerable research and discussion can be found on digitalization in education. The pressure on education institutions comes from the policies and projects set by governments and ministries, which communicate that education environments need to become more digitalized (see Kaarenoja, V 2017, Tømte et al. 2019, Tossavainen & Löytönen, 2018, and Prime Minister's Office publications 2/2016). When talking about digital environments, being it for learning or administration, there are similarities in usability and usage of the digitalized materials in learning and on how technology is integrated in teaching and e-learning materials in pedagogy. These publications offer useful data in creating, selecting, and using online learning materials which can be applied to student data management systems as well.

The usability issue emerged from the primary material of this research: both students and teachers indicated that the tools are ill-fitted for tracking studies, thus the user interfaces of current digital systems are not easing that function. Students opinions about complex layouts and difficulties in perceiving their progress may impede the tracking process. Uusi-Hallila (2018, 188) has discussed about what is a good digital learning material. She has listed the beneficial, aesthetic characteristics of a learning material which could be applied to any digital material and states that “the most visible way to support motivation is the layout of the material, which has become ever more important in an era of visual culture and social media”. Young people are used to seeing finished computer graphics and are talented themselves in editing pictures with advanced software.

According to Uusi-Hallila (2018, 188), the first impression of a tool is critical: in case the material seems chaotic, dull or indistinct, the user quickly has a negative attitude towards it, no matter how great the information would be in there. It can be fairly argued that the same benefits should apply to digital student data management systems. The systems used in OSAO and Oamk visually look

very administrative, unclear and dry. Strong visual design is lacking from the systems, as well as from the mobile versions. The feedback from the students attested to this as well which was discussed in the co-creation workshop in OSAO (see pages 40-41). Teachers didn't bring up the visuality in their interviews when discussed about tools used to follow study progress, but rather emphasized the functionality of them. Uusi-Hallila (2018, 188) noted the same: the visual layout (of the e-learning material) means more to the students than to the teachers.

Functionality is closely related to and intertwined with usability. From the research material, teachers' interviews and students' responses, similarities were found: the tools Peppi and Wilma lacked some crucial features concerning easy tracking of study progress. One function emerged repeatedly from the data. The progress and the credit accumulation should be seen with one glance and from one single page. This is not only a matter of convenience but also is linked to cognitive ergonomics. Visual ergonomics, as a part of cognitive ergonomics, is a discipline which is concerned with how visual information can be mediated in a way that the target audience gets it as easily and quickly as possible (Long & Richter 2014, cited 28.2.2020). Visual usability is based on understanding peoples' brain function. It is considered as visual usability, when the most needed information is placed in a way that it is easy to spot from the surroundings and is not blending with similar looking objects. Visual usability also means that the information should be presented in the clearest possible way and the topics or themes connected to each other would be grouped in close proximity. (Saari 2018, 73, Long & Richter 2014, 2). What differs from the visual usability in learning environments and student data administration systems is that in the former, visual stimulus should be avoided, because those can cause interruptions and distractions to learning, whereas in student data administration systems, and especially when talking about following study progress, there should be stimulus in particular situations as excessive amount of absences or low credit accumulation. From the research data, it appeared that both teachers and students expected that Peppi and Wilma would contain an alert system when studies are starting to lag behind, are too many absences or when partial performances are missing.

In the co-creation workshop, the visual usability issue also was evident. Putting students in groups for co-creating new tools and innovations to track study progress brought new insight into the current situation. Some of the groups selected the best parts of the current Wilma-system and simply improved the existing ones. They grouped and color-coded various parts from the study

data to make something pop out or to spot visually. For the vocational level, having information visually clear and tools as easy as possible for tracking study progress and credit accumulation is important, because not only the teachers or students are following what is going on with the studies, but also the parents of the minors. Therefore, a clear visual presentation on the student's current study situation with absences, missing courses, completed credits and partial credits, progress and future credit workload would be easily seen without a skill or need to interpret the data further, and without going to several platforms to get the information. As pointed out on the page 29 when the digital tools were analyzed, well-functioning student data management platforms can facilitate students' study path. At the moment, at least the participating education institutions face challenges in presenting and processing the data and unifying the data from the different platforms such as Learning Management Systems – in this case Moodle with student data management systems - in this case Peppi and Wilma. At the moment, at least the participating education institutions face challenges in presenting and processing the data and unifying the data from the different platforms such as learning management systems – in this case Moodle with student data management systems - in this case Peppi and Wilma.

4.4 Lack of coherence in tools, systems, rules and actions

As discussed in the previous chapter, the tools and systems used with guidance do not match the purpose well. Also, the varying ways the tools are used affects this lack of data also. Teachers have their own solutions for handling data, for example their own Excel sheets for tracking course completion, thus indicating also that there is no coherent way of using the existing, official systems. For guidance purposes, the data is useful, but as Gaebel et al. (2012, 29) have noticed, using the administrative data for tracking students' study progress provides “an economical way of following individual students, but often lacks the depth that would provide insights into underlying reasons and motives”, especially for enrollment and dropouts.

Changing legislation and the reform of vocational education have brought considerable changes to the way teachers plan and enter the personalized study paths of students. There has been updates in the guidelines on what should be done and in which part of the systems. The systems are being constantly developed further to meet the changes in legislation and guidelines. In many cases, however, the new features and functionality are added on top of the systems and thereby adding

more complexity as Tossavainen and Löytönen (2018, 184) also state. Teachers value systems that help their work and saves time. In designing the systems and services the workflow of teachers should be considered so that the use of systems would not add to workloads but lessen it.

Teachers suggest a lack of coherence in rules and actions, causing ambiguity: there are a lot of guides and instructions available, but for some reason some of the teachers themselves are not following the guidelines. This issue emerged from the guidance and counseling teachers' interviews. Depending on the teachers, markings into the systems are done in different ways. Some teachers are not even marking the grades properly as stated in the study results. There are processes and guidelines stored in the school systems and intranets, but periodically, they do not find their way to the teachers. There is no common way in marking the progress, and there is a lot of variation when the markings are done. School systems are introduced to teachers when involved in an induction, but it is not clearly stated how student administration systems should be used.

One interviewee (Interview #9, 2019) stated that when one starts as a new tutor teacher in the middle of a semester while other tutor teachers have already had the orientation for tutoring, then the new teacher might not get similar orientation to guidance and counselling work. This situation suggests the need for redesigning the orientation process for tutor teachers so that these cases would also be covered in the process. In addition, clear task lists could improve the situation and create a push towards more uniform way of tracking students' study progress and other counseling duties (cf. Tossavainen et al. 2018, 184).

With respect to resources, interviews pointed to teachers using other resources to cover guidance and counselling tasks, i.e. if a teacher has a course ongoing for her/his group, then that teaching resource is in some cases used also for guidance and counselling. This distorts the statistics of guidance and counselling when resources allocated to it are used for something else. It could be discussed if this is a case of teachers' autonomy or one of the unspoken rules. In both education institutions there are courses within which teaching resources might be utilized both for teaching and for guidance and counselling. It could be explored whether this type of use of resources are connected to teachers' autonomy. This can be also a manifestation of a tradition of counselling integrated to pedagogy as Juutilainen & Rätty (2017, 81) also state.

4.5 Infrequent study progress follow-up

It is stated in Oamk guidelines for guidance that tracking students' study progress should be proactive in nature and in case there are delays in credit accumulation detected, an immediate intervention should take place (Oamk 2016, 4, cited 22.8.2019). Guidelines for guidance also dictate the frequency of the student follow-up meetings. As heard from the teachers participating the interviews for this research, resources are adequate, if the student has studies in order. If not, meeting once a year or once in a semester is seen as inadequate (see pages 43-45). Previous research on student tracking has noted that critical measures to guidance relate to ensuring retention, possible early invention in case credit accumulation stops, and preventing dropouts (Gaebel et al. 2012, 10, 35).

When discussing with the interviewed staff members about the follow-up or tutoring sessions with students, half of them had a worry that due to the resources, they cannot truly check each students' performances regularly. Sometimes there are situations, when the follow-ups are held once a year, that only in the next session it is noted, that a student is so much behind his/her studies that closing the gap of missing credits is very challenging. The tools for tracking study progress thus should be designed in a way that guidance and counselling staff would be enabled to react quickly when alerting that student is behind one's studies.

It has been suggested by Gaebel et al. (2012, 49) that in some institutions, where early attention and alert systems were built into their study environment, guidance and counseling staff were positive about tracking of students. Even though in this research tracking included other measures beside the following of credit accumulation, it can be generalized here that the benefit would be increasing attention of students. When the systems enable alerts, the staff do pay more attention to students, because they notice the need through these alerts. At the moment, OSAO and Oamk do not use digital tools or systems which would have the feature of early alert, so the responsibility lies on the guidance and counselling staff shoulders to keep themselves notified of changes to progress. If the number for tutoring meetings is very infrequent, and there are not enough resources to keep track of students' progress regularly, it creates a vulnerability in the guidance process and the consequences may be serious for students are described in figure 1.

Students' engagement in following their own study progress and managing the studies is emphasized in the guidelines for guidance. This seems to be in order when looking at OSAO and Oamk students' survey responses concerning their motivation in mastering their studies and willingness to keep track on their credit accumulation. However, there were 4,1% of students who admitted that they are not following their study progress at all (see pages 11 and 51). This group of students are at risk of dropping out, if they keep under the radar of teachers. Another group of students to consider are the those dropping out of education institutions without changing the field of study, transfer to another institution or to another study field. The statistics show that in 2016-2017, 5,1% of all the students dropped out and didn't continue in any institution. In vocational education, the number of dropouts was 6,7% and in universities of applied sciences 6,1% (Statistics Finland 14.3.2019, cited 23.1.2020). With the scarce resources at hand leading to infrequent study progress follow-ups and inadequate tools for seeing real-time study progress and situation, these risk students may stay below the radar of guidance and counseling staff. This is a real challenge for the education institutions.

5 CONCLUSIONS

The suggestion from teachers about students' possible lack of motivation and skills to follow their study progress did not find support from the data collected for this research. Instead, the topic of tracking students' study progress proved to be more complex than previously assumed. Even though following students' study progress and credit accumulation is only a fraction of the entire guidance and counseling process undertaken by teachers, and one way for students to master their study process and engage in it, it involves a number of actions that are critical to supporting students' study path and future careers.

Students and teachers had contradictory views on students' skills and motivation towards following study progress. It came across in the teachers' interviews that they had doubts about students' engagement in tracking their credit accumulation regularly. Students themselves however indicated in the survey that they were motivated and active in mastering and following their study progress. There were some students who accused teachers of lacking competence as well: they thought that teachers did not have skills in guiding students to use the digital student data management and learning management systems. These doubts about effective use of the tools were coming from both parties, students to teachers and teachers to students. Perhaps these contradictory ideas that guidance and counseling staff have stem from those counseling meetings where they see the struggles of students whose study path is divergent from those whose study path is going according to the "regular" study plan.

Tracking students' study progress was experienced as challenging by teachers when students were diverged from the "masses", from those students whose studies were going according to the expected curriculum timetable. Currently, however, student populations are more heterogeneous, and more students can be included into the group of special cases, which in turn becomes the norm rather than the exception (cf. Saari, J 2018, cited 28.2.2020 and Statistics Finland 2019 on growing share of employed students). The dilemma here is that the tools for following study progress are not meeting with this diverse student population nor the needs for guidance and counseling staff to easily see these students' study progress.

Tracking study progress and credit accumulation was seen as meaningful in both education institutions involved in this research, but the lack of resources was seen as a threat to efficient follow-up in the guidance process. The resources define the amount of time guidance and counseling staff can organize follow-up meetings with students. In OSAO and Oamk, the tutoring or counseling meetings were taking place 1-2 times per academic year. However, this leads to a risk of losing those students who are left behind on the study progression if the frequency of meetings is too sparse. Teachers interviewed to this research stated that they continued meetings and follow-ups even though they may not have enough resources. In this way, the responsibility weighs heavily on the guidance and counseling staff.

Another challenge was stated with respect to aspects of the digital tools used, and how they were not being adequately designed for the purpose: institutions are using various platforms for student data management such as learning management systems and administrative data systems which contain different data from which the real-time study progress situation needs to be compiled manually.

A majority of teachers mentioned in the interviews that there are a number of processes inside the education institutions, which cause challenges to consistently track student data recordings and markings, which then lead to difficulties for example in guiding students' study progress. In both education institutions, staff intranets and webpages do contain instructions for administrative functions. Still some teachers stated that there were no uniform rules or time requirements about grading times, or marking partial performances. This finding points to the need for more research to explore the reasons for teachers' accounts concerning inconsistent rules and actions.

For future development at the education institutions involved in this research, it is suggested that a reallocation of the guidance and counseling resources takes place with a focus on the tools used in following the study progress. If guidance and counseling staff need to collect the information from several sources, guidance and counseling resources are wasted. When students are proceeding through their studies at expected rates, resources are deemed sufficient. As soon as there are deviations, the guidance and tutoring process becomes increasingly laborious.

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APPENDICES

Student Questionnaire

APPENDIX 1

Kysely opintojen hallinnasta ja seurannasta

Tämä kysely opintojen hallinnasta ja seurannasta liittyy opinnäytetyöhön, jota teemme Masters in Education Entrepreneurship -koulutusohjelmaan Oulun ammattikorkeakoulussa (Oamk). Tutkimukselle on myönnetty tutkimuslupa sekä Oamk:ssa että Oulun seudun ammattiopistossa (Osao) ja vastaukset käsitellään nimettömänä.

Arvostamme suuresti vaivannäköäsi.

Terveisin:
Perttu Hietala/Osao ja Piritta Nätyнки/Oamk

* Required

1. Missä koulussa opiskelet? *

Mark only one oval.

- Oamk
 Osao

2. Minkä vuoden opiskelija olet? *

Mark only one oval.

- 1.vuosi
 2.vuosi
 3.vuosi
 4.vuosi
 5.vuosi

3. Mistä seuraat pääasiassa opintojesi edistymistä? *

4. Kuinka usein seuraat opintojesi edistymistä? *

Mark only one oval.

- Päivittäin
 Viikoittain
 Harvemmin
 En seuraa opintojeni edistymistä

5. Mitä työkaluja/sovelluksia käytät opintojesi hallintaan? *

Voit valita useamman vaihtoehdon
Check all that apply.

- Peppi (Oamk)/Wilma (Osao)
- Moodle
- Tuudo (Oamk)/Wilma mobiilisovellus (Osao)
- Microsoft Teams
- Joku muu
- En käytä työkaluja/sovelluksia opintojeni hallintaan

6. Kysymys käyttämiisi työkaluihin/sovelluksiin liittyen; mitä hyviä ominaisuuksia niissä on?

7. Kysymys käyttämiisi työkaluihin/sovelluksiin liittyen; mitä parannettavaa/kehitettävää niissä on?

8. Jos olemassa olisi opintojen hallintaan liittyvä uusi sovellus ottaisit sen käyttöön? *

Mark only one oval.

- Ottaisit käyttöön
- En ottaisit käyttöön
- Käytän jo jotain sovellusta, mutta olisin kiinnostunut myös muista vaihtoehdoista
- Minulla on jo käytössä riittävä sovellus

9. Olisitko valmis maksamaan opintojesi hallintaan ja seurantaan liittyvästä sovelluksesta? *

Mark only one oval.

- En
- Kyllä, enintään 0,5 euroa kuukaudessa
- Kyllä, enintään 1 euro kuukaudessa
- Kyllä, enemmän kuin 1 euro kuukaudessa

Mitä mieltä olet, vastaa allaoleviin väittämiin asteikon mukaisesti

10. Opintojen edistymisen seuranta on mielestäni helppoa *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Seuraan opintojani ja olen kiinnostunut siitä miten ne etenevät *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Teen paljon töitä opintojeni eteen *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Minulle valmistuminen ajallaan on tärkeää *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Minulla on tavoitteena suorittaa tietty määrä opinto/osaamispisteitä kuukaudessa *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. Saan mielestäni riittävästi ohjausta tutor-opettajalta/ryhmänohjaajalta *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Luotan siihen että tutoropettajat/ryhmänohjaaja kertovat minulle missä menen omista opinnoissani *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Minua ei oikeastaan kiinnosta opintojeni tilanne, koska menen muun ryhmän tai kavereideni mukana *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Koulullani on käytössä hyödylliset välineet opintojen seurantaan ja hallintaan *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Olen motivoitunut opiskelija *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. Tunnen että hallitsen opintojeni suunnittelun ja seurannan hyvin *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. Opintojeni suunnittelu on minulle tärkeää *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. **Tunnen tutkintoni rakenteen hyvin ***

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. **Mitä muuta sinulla tulee mieleen omien opintojesi seurannasta ja hallinnasta**

24. **Missä koulussa opiskelet? ***

Mark only one oval.

- Oamk
 Osao

25. **Minkä vuoden opiskelija olet? ***

Mark only one oval.

- 1.vuosi
 2.vuosi
 3.vuosi
 4.vuosi
 5.vuosi

26. **Mistä seuraat pääasiassa opintojesi edistymistä? ***

27. **Kuinka usein seuraat opintojesi edistymistä? ***

Mark only one oval.

- Päivittäin
 Viikoittain
 Harvemmin
 En seuraa opintojeni edistymistä

28. **Mitä työkaluja/sovelluksia käytät opintojesi hallintaan? ***

Voit valita useamman vaihtoehdon

Check all that apply.

- Peppi (Oamk)/Wilma (Osao)
 Moodle
 Tuudo (Oamk)/Wilma mobiilisovellus (Osao)
 Microsoft Teams
 Joku muu
 En käytä työkaluja/sovelluksia opintojeni hallintaan

29. Kysymys käyttämiisi työkaluihin/sovelluksiin liittyen; mitä hyviä ominaisuuksia niissä on?

30. Kysymys käyttämiisi työkaluihin/sovelluksiin liittyen; mitä parannettavaa/kehitettävää niissä on?

31. Jos olemassa olisi opintojen hallintaan liittyvä uusi sovellus ottaisit sen käyttöön *

Mark only one oval.

- Ottaisin käyttöön
- En ottaisi käyttöön
- Käytän jo jotain sovellusta, mutta olisin kiinnostunut myös muista vaihtoehtoista
- Minulla on jo käytössä riittävä sovellus

32. Olisitko valmis maksamaan opintojesi hallintaan ja seurantaan liittyvästä sovelluksesta *

Mark only one oval.

- En
- Kyllä, enintään 0,5 euroa kuukaudessa
- Kyllä, enintään 1 euro kuukaudessa
- Kyllä, enemmän kuin 1 euro kuukaudessa

Mitä mieltä olet, vastaa allaoleviin väittämiin asteikon mukaisesti

33. Opintojen edistymisen seuranta on mielestäni helppoa *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. Seuraan opintojani ja olen kiinnostunut siitä miten ne etenevät *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. Teen paljon töitä opintojeni eteen *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. Minulle valmistuminen ajallaan on tärkeää *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

37. Minulla on tavoitteena suorittaa tietty määrä opinto/osaamispisteitä kuukaudessa *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38. Saan mielestäni riittävästi ohjausta tutor-opettajalta/ryhmänohjaajalta *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. Luotan siihen että tutoropettajat/ryhmänohjaaja kertovat minulle missä menen omilla opinnoissani *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä
Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

40. Minua ei oikeastaan kiinnosta opintojeni tilanne, koska menen muun ryhmän tai kavereideni mukana *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

41. Koulullani on käytössä hyödylliset välineet opintojen seurantaan ja hallintaan *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42. Olen motivoitunut opiskelija *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

43. Tunnen että hallitsen opintojeni suunnittelun ja seurannan hyvin *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

44. Opintojeni suunnittelu on minulle tärkeää *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

45. Tunnen tutkintoni rakenteen hyvin *

1= En osaa sanoa, 2= Täysin eri mieltä, 3= Jokseenkin eri mieltä, 4=Jokseenkin samaa mieltä, 5=Täysin samaa mieltä

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

46. Mitä muuta sinulla tulee mieleen omien
opintojesi seurannasta ja hallinnasta

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 Google Forms

Teemahaastattelu opettajille MEE Etenee!

1. Mitä työkaluja käytät ohjaustilanteissa, joissa käsitellään opintojen etenemistä ja seuranta?
2. Millaiset resurssit sinulla on opiskelijoiden ohjaamiseen?
3. Miten koet resurssien määrän?
Mikäli koet, että resursseja ei ole tarpeeksi, määrittele syyt
4. Mitkä ovat suurimmat haasteet opintojen seurannassa?
5. Mitkä seikat tukevat ja auttavat opintojen seurannassa?
6. Mikä olisi ihanteellisin tapa saada tietoon ohjaamasi opiskelijan opintojen tilanne/eteneminen?
7. Montako kertaa lukuvuodessa sinulla on tuutorkeskustelu opiskelijoidesi kanssa?
8. Jos opiskelijan opinnot huomataan viivästyneeksi, mikä on seuraava ohjauksellinen askel?