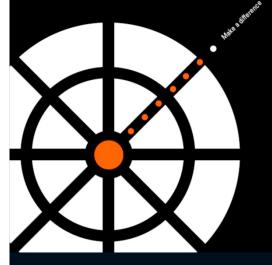
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'Student Information at The Hague University of Applied Sciences' Bachelor Thesis in International Communication Management



Client Organization: Lectoraat Change Management

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The thesis on hand does not include any names of students interviewed.

Brief summaries of their personal details and study backgrounds can be found in <u>appendix 3</u>.

Executive Summary

The thesis project has been carried out for THUAS' research group Change Management. The problem stated in an initial briefing was a lack of study success. As the client expected student information to play a key role in solving it, the following research objective has been defined: Develop a communication strategy to optimize THUAS' information environment, making it more effective from the student perspective. Therefore, five research questions have been formulated: **(1)** What characterizes the current information environment? **(2)** What role does information play in the study experience? **(3)** What are the main problems? **(4)** Which consequences result from these problems? **(5)** What characterizes the relationship between information problems and study success?

Throughout an initial situation analysis, methods of qualitative research (e.g. customer journey mapping) and desk research (e.g. annual report) have been used. The subsequent literature review was determined by books and articles. In the in-depth research phase a case study has been carried out at one of THUAS' faculties. Based on the situation analysis, the core problem was redefined as 'students avoiding THUAS' formal information systems'. Referring to possible causal factors, the literature review helped define information quality, and identified stress as a possible consequence. It further discussed how information quality could be increased by taking a more user-centered approach. The subsequent case study at THUAS provided information about students' every-day experiences with information. It showed that information quality left room for improvement, although most students did not feel a negative emotional impact. 30% however, felt frequently stressed because of information problems. Four different information types have been designed in terms of personas, whereas 'inflexible' and 'passive' information types appeared to be affected in their individual study success.

It was specified that THUAS' current information environment served the needs of some information types only. Consequently, it was recommended to implement an internal communications campaign which would initiate a discussion amongst students and teachers, activating them to challenge status quo and collaboratively innovate student information at THUAS.

Chapter 1: Introduction

The paper illustrates the research process and results of a thesis project, rounding off the bachelor program "International Communication Management" at The Hague University of Applied Sciences (THUAS). The introduction elaborates on both the project <u>client</u> and the <u>research</u> carried out.

1.1. About the Client

1.1.1. Client Background

The client was The Hague University's Lectoraat (research group) Change Management – in particular the research group member Wouter van Dam as the project mentor. As the 28th research group of THUAS, the Lectoraat Change Management has been officially inaugurated on March 5, 2014, led by the lector Jacco van Uden. According to THUAS, research groups build a bridge between education and professional practice by conducting research (The Hague University of Applied Sciences A, 2014). The Lectoraat Change Management follows this mission by looking at management from different perspectives, seeking to overhaul traditional ways of thinking (The Hague University of Applied Sciences E, 2014).

1.1.2. Problem Statement

As briefed by the project client, the problem identified was a lack of study success at THUAS, meaning that not enough students were graduating from their studies within the designated period of time (Dam, 2014). Nevertheless, lacking study success is a multifaceted problem with various factors contributing to it (Zijlstra, 2014). One of these factors could be the way students are informed about their studies, as presumed by the client and confirmed by Wâtte Zijlstra who is conducting research about study success at THUAS.

During the client's experience as a teacher, he had observed that many students lacked overview¹ of their studies which he attributed to deficits in student information (Dam, 2014). Students who do not have overview of their studies may

¹ The client defines 'overview' as students' combined understanding of the study goal (what will be learned during study?) and the way to get there (which steps have to be taken and why?).

approach them in a rather shortsighted manner without seeing the interconnections. They looked at their studies as a 'hurdle race', while being unaware what was expected from them – a situation which causes uncertainty and stress (Dam, 2014). These negative feelings might in turn have a negative impact on their studies, possibly causing them distraction or demotivation (Dam, 2014). According to the client, insufficient student information can be held accountable for this lack of overview, which is to be regarded as a *communication issue* accordingly.

1.1.3. Client Objective

The client's objective was to improve study success at THUAS (Dam, 2014). According to the university, 'study success' describes the number of students completing their studies within a designated period of time². Consequently, the desired situation is that all students graduate on time, with as few as possible leaving THUAS before that or delaying their studies. Numerous initiatives have been introduced to reach this objective, but none of them has proven to impact study success

significantly (Dam, 2014; Zijlstra, 2014). As a result, the client seeks to take an alternative approach and starting point, seeking to optimize the way students are being informed about their studies. In his opinion, improved student information will be a vital prerequisite to reaching the objective of improved study success at THUAS.

1.2. About the Research

1.2.1. Research Scope

Taking the communication perspective, the research focused on the communication issue 'students lacking overview of their studies' – rather than tackling the overall problem 'lack of study success'. The resulting recommendations do not solve the multifaceted problem, but contribute to its solution by suggesting an optimized way of informing students. Therefore, THUAS' information environment has been evaluated from the student perspective. Employee concerns were not part of the research, but solely information which students experienced in their every-day-life at THUAS.

 $^{^2}$ With regard to THUAS' study programs, this period is usually 3-4 years for a bachelor degree, and 1-2 years to attain a master's title.

1.2.2. Research Objective

The objective of the final thesis project is to develop a communication strategy which would optimize THUAS' information environment to make it more effective from the student perspective.

- *By:* (1) Mapping the current information environment at THUAS
 - (2) Understanding the study experience at THUAS with regard to information
 - (3) Identifying problems in the information environment and exploring their causes
 - (4) Exposing the consequences which result from these problems
 - (5) Clarifying the relationship between information problems and study success

1.2.3. Research Questions

To steer the research process into the right direction, five central research questions have been developed, complemented by a set of sub-questions (*appendix 1*).

- (1) What characterizes the current information environment at THUAS?
- (2) What role does information play in the study experience of THUAS' students?
- (3) What are the main problems in THUAS' information environment?
- (4) Which consequences result from problems in the information environment?
- (5) What characterizes the relationship between information problems and study success?

1.2.4. Research Approach

The approach taken to answer the research questions was determined by the so-called Bridge model, a structured approach to research which combines the traditional approach³ to research and a practical one, aiming to set up a strategic communication plan⁴. Additional information and definitions of key terms can be found in <u>appendix 2</u>.

³ See APA Style Guide/ "Research methods for business students" by Saunders

⁴ See "Setting up a Strategic Communication Plan" by Vos

Chapter 2: Situation Analysis

The situation analysis aims to reframe and further understand the problem 'students lacking overview of their studies'. An <u>internal</u> and <u>external analysis</u> sheds light on the problem in the context of THUAS' ecosystem⁵, followed by a <u>SWOT analysis</u>.

2.1. Internal Analysis

2.1.1. The Hague University

THUAS is a university of applied sciences which is located in the Netherlands, considered to be one of the most culturally diverse institutions of higher education nationwide. 23,400 students are currently enrolled at THUAS, coming from 143 different nationalities. Besides, a total of 1,932 staff members are supporting the university's operations (The Hague University of Applied Sciences B, 2014). Next to its internationalization efforts,

the university's principal aim is to provide high-quality, innovative professional education (Brons & Menédez, 2013). Consequently, THUAS' educational framework is set up to facilitate that students graduate as both world citizens and knowledge workers (The Hague University of Applied Sciences C, 2014).

According to the client, the topic of 'study success' is being extensively discussed at THUAS (Dam, 2014). The university's annual report further suggests that study success is an important topic at strategic level and therefore reinforced by the management (Brons & Menédez, 2013). The report claims that as a university of applied sciences, THUAS is characterized by a broad and varied student intake. As a result, it would be important that all members of the heterogeneous student population received the opportunity of completing their studies as effectively as possible. Besides, the authors emphasized the fact that first year students would need to be supported in particular, arguing that students who managed to receive their first year diploma were likely to further complete their studies successfully (Brons & Menédez, 2013). Hans Siebers, a researcher from the University of Tilburg who is concerned with study

⁵ Five elements: **(1)** The Hague University as an organization, **(2)** THUAS' information systems, **(3)** Stakeholders involved and their way of communicating information, **(4)** THUAS' students and their perception of the information provided, **(5)** Macro trends affecting the transfer of information.

success, defined study success as the combination of the average study tempo, average grade point, and the fact that the student completes the study (Dr. Siebers, 2012). Whereas some universities have set up specific criteria to measure and track study success (University of Amsterdam, 2014), the concept remains rather vague at THUAS: Internal documents suggest that less emphasis is being put on the average grade point at THUAS, but rather on the fact that the students complete their studies within the designated period of time (Dam, 2014). An expert interview with Wâtte Zijlstra who conducts research about study success at THUAS, confirmed that study success is not defined in terms of grade points at THUAS (2014). Moreover, he pointed out that it is defined from the teachers' perspective and might have a completely different meaning for students (Zijlstra, 2014).

In order to improve study success at THUAS, multiple initiatives have been introduced in the recent years, including tutoring programs, support programs, and diversity programs (e.g. "Educational Career Supervision", "Huiswerkbegeleiding"/ homework support) (Dam, 2014). Zijlstra concretized that a lot had been done in the past four years but none of these programs has managed to improve study success (Zijlstra, 2014). THUAS' management further admits in their annual report of 2012: "A range of different activities and interventions were developed (...); however, these initiatives were generally based on the hope that they would be effective rather than on research data and proven results, due to the fact that the necessary data was simply unavailable at the time" (Brons & Menédez, 2013). According to the authors, THUAS' "Monitor Information Team" had only recently been able to compile and monitor results from 2009 to 2012, enabling further research on the topic (Brons & Menédez, 2013).

According to Zijlstra, teachers think of excellence, whereas they would need to be more focused on individual characteristics of students (2014). Moreover, he confirmed that student information has an impact on study success as it was important to manage expectations. As a result, it would be important for teachers to pay more attention to each individual to ensure they have all necessary information to approach their studies successfully (Zijlstra, 2014).

2.1.2. Information Systems

Besides THUAS' core activity of providing quality education, multiple supporting services are offered. One of them is to provide students with information needed to complete their studies successfully. Amongst others, this implies information about course contents, schedules, deadlines and exams, contact persons, holidays, and study support. For these purposes, a total of 200 information systems are being used, although not all of them affect the student directly (Gremmen, 2014). The following table attempts to provide an overview of the complex system of information services from the student perspective.

Content:	Sources:	Tools:	Channels:		
Exam dates	Teachers	• E-mail	Blackboard		
Deadlines	Coaching	Announcements	HHS website		
Holiday dates	assistants	• Face-to-face	Student portal		
Course contents	Tutors	communication	Osiris		
Course structure	Fellow-	Excel tables	Student E-mail		
Homework	students	Text documents	• Webber		
Success criteria	• Friends	Powerpoint	Timetable		
Contact persons	• Student	slides	application		
• Code of conduct	associations	Lectures	Facebook		
Competences	 International 	Chat	LinkedIn		
	office	Telephone call			

Pieter Gremmen who is project manager at the university's IT department, identified several problems with regard to THUAS' information environment. Apart from technical problems, he criticized insufficient connectivity between the systems (Gremmen, 2014). According to him, THUAS' digital environment is rather fragmented and does not access one key source of information. Instead, information is being communicated by different individuals who do not use the information systems correctly (Gremmen, 2014). According to Gremmen, THUAS' management is aware of these problems and criticized both outdated software and the way software is being used (Gremmen, 2014).

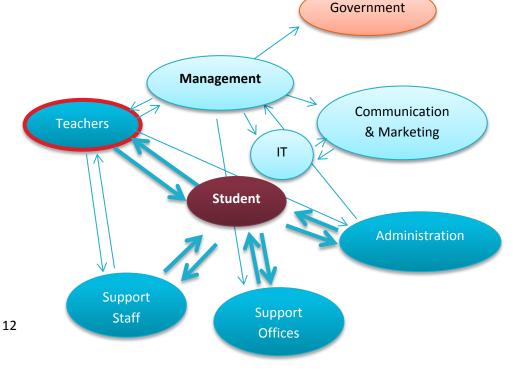
STORMAS' management attempts to change the status quo by
means of an extensive IT project, seeking to re-position THUAS
as straffliversity with an extraordinary digital learning and working
int.
environment (Gremmen, 2014). The concerned project seeks to
Faculties
imprograms
pugeting two main goals: (1) Improvement of the digital
courses
environment; (2) Making better use of the environment.
Whereas the first goal is primarily technical, the latter needs to induce a cultural change at THUAS. According to Gremmen the

"major challenge" will be to win over THUAS' teachers to use the university's digital environment in the correct manner (Gremmen, 2014). He claims that many teachers had developed their own patterns on how to communicate information and were rather skeptical of change. Nevertheless, it will be vital to the project's success that all teachers truly understand THUAS' digital environment to further innovate their way of teaching something that will eventually benefit the students according to Gremmen (Gremmen, 2014). To figure out how to approach this challenge, the IT department decided to take a bottom-up approach by organizing a so-called "Think Tank" to gather ideas. Organizational Moreover, Gremmen expects THUAS' Development Program ⁶to benefit the IT project, as staff from different academies will be confronted who have used the information systems differently in previous times (Gremmen, 2014). However, the IT department is concerned with formal communication only and - according to Gremmen - not interested in controlling informal communication (Gremmen, 2014),

2.2. External Analysis

2.2.1. Stakeholders

Students receive information through both formal and informal channels. Consequently, it was necessary to map the concerned *field of forces*, consisting of all parties interested in student information, and their relation to the problem on hand. The below graphic provides a simplified overview of THUAS' communication network, serving as a starting point to further analyze the information environment.



⁶ THUAS is currently passing through a so-called 'Organizational Development Program' which implies organizational change and rearrangements. Above all, the number of faculties will be reduced from 12 to 7.

The stakeholder map shows the flow of information as experienced by the student. Students interact directly with their teachers, support staff (e.g. coaching assistant/ tutor), support offices (e.g. international office), and partially with the administration (e.g. exam registration/ Osiris). Throughout initial interviews with students, it became obvious that they regard teachers as the main source of information (Focusgroup-1, 2014). Correspondingly, the following analysis will focus on the key stakeholder group of 'teachers'. (*Complete analysis in appendix 4.*)

Teachers do not only transfer knowledge concerning the study courses they lecture, but further communicate information to the students. Examples for this are success criteria, constituting a vital prerequisite for students successfully complete their studies. The transfer of information may take place during the lectures or via student email and blackboard. Whereas emails are normally used for urgent or very important information, Blackboard serves as a "Dropbox" for documents and PowerPoint slides. An important document which can be found here is the so-called "module book", "module format", "course description" or "manual" (name varies across study programs) (Focusgroup-1, 2014). Teachers are responsible for filling the respective template with information.

Some teachers are dissatisfied with blackboard because students. frequently face problems with enrolment and information search. As a result, some have developed alternative approaches to transfer information. One teacher has explained that he had given up on blackboard and used LinkedIn instead because it was more user-friendly and effective (Peufflik, 2014). In addition, some teachers have become part of the informal network of their students who approach them with individual questions either personally or by email. Some teachers are even active on Facebook and moderate study-related groups (Focusgroup-1, 2014). At the same time, many teachers seem unaware of student information potentially being a problem at THUAS. According to Gremmen, most teachers were not intrinsically motivated to change something about the way they communicate information (Gremmen, 2014). On top of that, some students described situations in which teachers feel bothered by students, and ask them to reduce emails and personal communication (Student-1, 2014).

2.2.2. THUAS' Students

Throughout so-called customer journey mapping sessions⁷ it became obvious that many important touch points between the students and the university were related to information – some of them vital 'moments of truth'. For example, students need to receive and understand information about which criteria they have to fulfill in order to receive their first-year diploma or go on exchange.

With regard to student information, numerous points of criticism were expressed by the participating students (*see appendix 5*). Students claimed to have general difficulties to find information and confirmed that they would lack overview of their studies. In particular, they criticized an information overload on Blackboard, difficulties to register for exams on Osiris, reception of emails being aimed at others, confusing course manuals, and delayed yet incomplete information about specializations and exchange opportunities. Especially, delayed information would complicate informed decision making and create stressful situations for many students (Focusgroup-1, 2014). It became obvious that students were confronted with pieces of information from various directions, without being able to recognize patterns of what to find where. In fact, each teacher used information tools and channels in different ways - something that was criticized not only by students but also by the IT department. As a result, students had created their own strategies to obtain information which appeared to consist of contacting teachers and fellow students - the latter group oftentimes through Facebook. One student explained "If I need to find out information I just go to the teacher (...) I'd rather go to the teacher than reading 10 pages of the manual." (Focusgroup-1, 2014, min. 50:15). Another student summarized: "Surely the information has to be somewhere but sometimes you don't know where to find the information, so you rather just go to somebody (...)" (Focusgroup-1, 2014, min. 50:46). The students added that information from fellow students was not always reliable, and that they would wish for a centralized forum in which all students and teachers could exchange information (Focusgroup-1, 2014).

⁷ Customer journey mapping is a tool to help identify the interaction between a user and an organization. By understanding their thought processes and reactions, opportunities for improvement and innovation can be revealed, potentially improving the user experience.

Two students were further interviewed individually to clarify whether the previous complaints would be repeated by separate individuals. Both students claimed to have no major problems with the way they were informed by THUAS (see appendix 9 +appendix 10). Both students acknowledged that they were not always provided with the information needed, but appeared to be rather comfortable with the situation (Student-1, 2014). Both gave the impression of being relaxed when information was missing or delayed, and proactive when information was ambiguous or unclear. One of the interviewees further criticized that information was oftentimes vague, stating unclear success criteria which left too much room for interpretation which would affect his studies negatively (Student-1, 2014). The same student criticized that information was sometimes overlapping and conflicting, giving the example of multiple holiday calendars which all provided different information (Student-1, 2014). Both students mentioned that they felt 'in the dark' from time to time, and made uninformed decisions (Student-2, 2014). The second interviewee further explained that she approached her studies from day to day, without having a long-term view (example: student chose public specialization what prevented her from

applying to exchange institution of her choice). Both students confirmed that they used informal communication to get information, rather than relying on the formal information systems. One of the interviewees explained that this was not always easy: "You have to bug people to get the information. You have to distract them, take them out of their hole and tell them what you need." (Student-1, 2014, min. 36:35). Although both interviewees did not see their studies largely affected by these issues, they explained that fellow-students were facing problems indeed. One student added the example of a peer who dropped out because of information issues (Student-1, 2014). The previously interviewed focus group had portrayed two similar cases. It will be subject to further investigation whether or not it is the majority of students who has problems with information.

2.2.3. Macro Trends

Due to the age range of THUAS' student population, the socalled "Generation Y" and social media will be analyzed. This will help understand the students' wants, needs, and behavioral patterns in a larger context. There is general consensus that **Generation Y** describes those people born between the early 1980s and the mid-nineties. The fact that people's beliefs are shaped by internal and external influences explains why people from one generation have several things in common. As Generation Y grew up in the same macro-environment, they have drawn similar moral positions and attitudes towards the world (Pearson, 2013). Having grown up in an interconnected world, Generation Y is known to be more tech-savvy than previous generations. Individuals from Generation Y have always been hyper-connected and exposed to a great information load though the internet, mobile phones, and social media (Pearson, 2013). Although Pearson argues that Generation Y was able to make sense of diverse and rapid information flows, other sources disagree. According to a survey of the "Cornerstone OnDemand State of Workplace Productivity Report" Generation Y felt more overloaded in today's hyperconnected workplace than the older workers. In addition, respondents from Generation Y traced overload to too much information and technology (Beck, 2013). At the same time, several sources indicate that Generation Y is known to be more social than the previous generations. They are extremely good

team players who literally thrive in group environments (Miller, 2013). This might explain why informal information is being preferred by many students at THUAS.

On the other hand, the majority of teachers and other university employees are more likely to belong to "Generation X" or the "Baby Boomers". Thus, receivers and senders of information come from different generations, what is important to realize. Especially the Baby Boomers were used to having limited access to information, whereas today's world is rather characterized by information overload (Parment, 2012, p. 37). Moreover, generation Y likes to blend their professional and private life, while Baby Boomers tend to behave conversely, taking a very structural and professional attitude towards work (Gargiulo, 2012). In summary, the generations have very different features and needs.

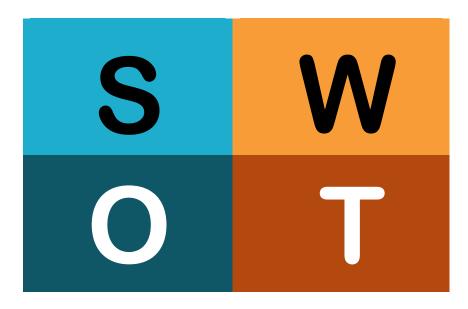
	Work	Information	Technology
	overload:	overload:	overload:
Generation Y	58%	40%	38%
Older workers	48%	31%	20%

Having previously identified that **social media** plays an important role for Generation Y and THUAS' students, its relation with study information will further be analyzed. The original purpose of Facebook was to facilitate the creation of relationships amongst the college student population of Harvard. Over the last decade, a general offline-to-online trend has evolved (Ellison, Steinfield, & Lampe, 2007), meaning that many things which have taken place in the "real world" take place online nowadays. Philipp Riederle, a researcher on the communication patterns of Generation Y, claims that social media has become a new channel of two-way information with friends and fellow students in a real-time manner (Riederle, 2012). According to him, the digital world does not replace real life experiences and relationships, but adds value to them by offering effective and omnipresent channels such as Facebook. Students who were not signed up would miss out on both social contact and information (Riederle, 2012).

Recently, the story of two Yale students who created a better, more user-friendly version of the online-catalogue of their studies caught attention worldwide. It constitutes an example of students being dissatisfied with the 'traditional' way of being informed, thus taking initiative and designing a contemporary replacement. (*Complete story in <u>appendix 11</u>*).

2.3. SWOT Analysis

The following matrix confronts the most important results of the situation analysis. Findings from the internal analysis can be found in the first row, followed by the external analysis below. The findings are classified as **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats. The SWOT analysis helps redefine the core problem and discloses bottlenecks to its solution.



Strengths:

- Study success as a 'hot topic', reinforced by management (see 2.1.1.)
- Mission of providing students with equal opportunities to complete studies successfully (see 2.1.1.)
- Organizational development program brings together staff from different faculties (see 2.1.2.)
- Management awareness of IT problems, re-position THUAS as university with top digital environment (see 2.1.2.)
- Project to improve digital learning and working environment (see 2.1.2.)

Weeknesses:

- Vague concept of study success, not being measured at THUAS (see <u>2.1.1.</u>)
- Previous programs to improve study success have failed (see <u>2.1.1.</u>)
- Complexity due to high number of information systems (see 2.1.2.)
- Insufficient connectivity between systems (see 2.1.2.)
- Information systems do not enter one key source of information, no uniform way of using (see <u>2.1.2.</u>)
- Major challenge of changing teachers' behavior (see 2.1.2.)
- IT department concerned with formal communication only *(see <u>2.1.2.</u>)*

Opportunities:

- Informal communication with teachers (see 2.2.1.)
- Some teachers have developed strategies to provide students with better overview (*see* <u>2.2.1</u>.)
- Some teachers active on social media (see <u>2.2.1</u>)
- Informal communication with fellow students (see 2.2.2.)
- Some students comfortable with delayed or missing information (see 2.2.2.)
- Students rather tech-savvy (see <u>2.2.3.</u>)
- Information through social media (see <u>2.2.3.</u>)
- Students building own information networks, make hidden information easily accessible (see <u>2.2.3</u>.)

Threats:

- Many teachers unaware of student information as potential problem (see <u>2.2.1.</u>)
- Many teachers not motivated to change way they communicate information (see <u>2.2.1.</u>)
- Some teachers feel disturbed by students (see 2.2.1.)
- Students cannot find formal information (see 2.2.2.)
- Delayed information (see <u>2.2.2.</u>)
- Teachers use info tools/channels differently (see 2.2.2.)
- Incorrect information from fellow students (see 2.2.2.)
- No central THUAS forum in use (see 2.2.2.)
- Vague information, success criteria unclear (see 2.2.2.)
- Conflicting info through different tools/channels (see 2.2.2.)
- Students feel 'in the dark', uninformed decisions (see 2.2.2.)
- Students approach studies shortsightedly (see 2.2.2.)
- Cases of students dropping out due to information issues (see <u>2.2.2</u>)
- Information overload (see <u>2.2.3.</u>)
- Students and teachers from different generations (see <u>2.2.3.</u>)

Conclusion

Despite the fact that some students confirmed that they lacked overview of their studies, the underlying core problem appeared to be something else. When looking at the statements of all interviewed students, the following observation could be made: Student information has shifted from formal to informal communication. From the perspective of the organization, this can be regarded as a problem due to the fact that the informal communication is more difficult to control by the management. Consequently, the core problem could be redefined as **students** avoiding formal information. Instead of relying on formal information only, all students had developed their own strategies of information search. Several teachers showed similar features, e.g. when sharing student information outside of the formal information systems of THUAS. However, it is important to regard these hints as preliminary findings which will have to be validated at a later project stage.

In order to solve the underlying problem of avoidance, *communication* will play a major role. In particular, an effective communication strategy may have to raise awareness about the issue, and suggest an optimized way of informing students. Major bottlenecks to the problem's solution could be that teachers have their own patterns of how to communicate information, and many of them were not aware of the fact this might constitute a problem for some students. An additional bottleneck would be that THUAS does not look at formal and informal communication in an integrated manner, but sets its focus on formal information systems by improving the university's digital environment only. Major opportunities were the fact that THUAS puts great emphasis on improving study success and runs an organizational development program, bringing together people from different faculties. Teachers and other staff members were expected to exchange information and learn from each other's experience of how to use the university's information systems most effectively. Another opportunity would be that students were very tech-savvy and would easily adapt to a new, coherent system of acquiring information. Moreover, there were some teachers who had already adapted their patterns and developed new strategies of how to communicate best with their students.

Due to the fact that all research findings were interconnected through both causal and correlated relationships, it was essential to filter the input so as to identify the main factors influencing the problem 'avoidance of formal information'. When looking at the preliminary research findings, key influencers appear to be two main factors:

- (1) The advantages of informal communication: To many students (/Generation Y) it is natural to communicate with teachers and fellow students in person or online, so as to obtain all relevant student information.
- (2) The disadvantages of formal communication: For many students THUAS' formal information systems appeared to bear more problems than help. In particular, students were dissatisfied with information being delayed, vague, or difficult to find.

Due to the fact that informal communication has replaced the formal systems for many students, THUAS might want to reduce the disadvantages of formal communication and improve **information quality** so as to strengthen THUAS' formal information systems. Consequently, students (and teachers) could trust in formal information and use it as a *basis* to further discuss details in their informal network. This way, the university would regain control about the information communicated, and create a reliable information platform for students and teachers.

Chapter 3: Literature Review

Literature has been analyzed to look at the problem of 'students avoiding formal information' from different perspectives. Literature from the field of **Information Technology**, **Psychology** and **Service Design** helped analyzing the problem it in the context of what was known about the type of problem already. Based on a critical review, it was possible to establish key factors related to it, as well as a conceptual framework of possible solutions. Finally, a 'knowledge gap' was defined.

It would be essential to clarify the exact <u>meaning</u> of 'information quality', understand its <u>consequences</u>, and identify <u>actions</u> which can improve information quality. To steer the literature review into the right direction, a set of three leading research questions has been developed:

- (1) What characterizes the quality of information?
- (2) What impact does the quality of information have on people?
- (3) Which actions can organizations take to improve information quality?

3.1. Characteristics of Information Quality

According to the International Association for Information and Data Quality (IAIDQ), information quality is constituted by facts in a given context which meet or exceed the expectations of people using the information (IAIDQ, 2008). The authors of the book "Business Information Systems" concretize how information quality can be evaluated by introducing three main characteristics: Time, content, and form (Bocij, Greasley, & Hickie, 2008, p. 10). According to the authors, the difference between 'good' and 'bad' information can be determined by looking at how many attributes were represented (Bocij, Greasley, & Hickie, 2008, pp. 10-11).

Tin	Time:		Content:		Form:		Additional		
						characteristics:			
•	Timeliness	•	Accuracy	•	Clarity	•	Confidence in		
•	Currency	•	Relevance	•	Detail		source		
•	Frequency	•	Completeness	•	Order	•	Reliability		
•	Time	•	Conciseness	•	Presentation	•	Appropriateness		
	period	•	Scope	•	Media	•	Received by correct		
							person		
						•	Sent by correct		
							channels		

The first dimension to critically assess the guality of information is the so-called **time** dimension. It describes the time period information deals with, and the frequency at which it is received. According to the authors, information needs to be communicated in a timely manner, reflect current circumstances, be available as often as needed, and cover the correct time period (Bocij, Greasley, & Hickie, 2008, p. 12). In the case of THUAS, this dimension has been particularly criticized by the students who claimed that information was oftentimes delayed (Focusgroup-1, 2014). The dimension of content refers to the scope and contents of information. In particular, it assesses its accuracy, relevance to a specific situation, completeness, and conciseness - aiming to present information in the most compact form possible (e.g. infographics). Furthermore, the scope of information should be appropriate to the information needs of the recipient (Bocij, Greasley, & Hickie, 2008, pp. 12-13). Also this dimension has been heavily criticized by THUAS' students - especially with regard to the relevance and conciseness of information, complaining about lengthy yet vague module books for instance (Student-1, 2014). The third criterion information quality focuses on the **form** of information

and how it is presented to the recipient. Specifically, it looks at the information's clarity and correct level of detail to meet the recipient's information needs, correct and expected order, and appropriate presentation while using the correct medium (Bocij, Greasley, & Hickie, 2008, p. 13). According to the THUAS students interviewed, especially the information's clarity and presentation would show room for improvement. In particular, students expressed confusion and information overload, being pushed at them through too many different tools and channels (Focusgroup-1, 2014).

Amongst the additional characteristics as mentioned by the authors assess information quality (Bocij, Greasley, & Hickie, 2008, p. 13), the attribute "sent by correct channels" appears to be further criticized by THUAS' management and IT department who claim that teachers use the university's information systems in the wrong way (Gremmen, 2014). Furthermore, the characteristic "reliability" appears to constitute a problem for students who complain about conflicting and ambiguous information (Student-1, 2014). Looking at *all* dimensions retrospectively, it becomes obvious that information quality is mainly being measured by the perception of the user. As it is the

user of the information who has to fully understand it in order to act in favor of the organization, it is essential that content, timing, and presentation are aimed and tailored to the respective target group. In the case of THUAS, the majority of aspects have been criticized by THUAS' students who are the main users of information. As a result, information quality at THUAS has to be described as rather low when taking the student perspective. However, it is important to highlight that a correct assessment of information quality at THUAS will need further verification in terms of a higher number of interviewees.

3.2. Impact of Information Quality

One of the interviewed THUAS students had claimed that missing information (as one characteristic of information quality) would stress and demotivate students, eventually causing some of them to fail: "*If you have the information you have ease of mind and can focus on your studies. If you don't have information and it's difficult to find it, it's a lot more stressful. It costs a lot of time and efforts and you cannot plan activities - it might cause people to fail or just demotivate them.*" (Student-1, 2014).

Throughout extensive desk research it became apparent that not much research had been conducted about the impact information quality had on the information user. Consequently, it would be interesting to challenge the student's experience and hypothesis of low quality information causing stress and demotivation.

Demotivation

According to Victor Vroom's expectancy theory of motivation which was first published in 1970, individuals decide to behave in certain ways because they feel motivated by the *expected* result of their behavior. The theory suggests that individuals they can be motivated if they believe in the following claims (University of Cambridge, 2014):

- There is a positive correlation between efforts and performance,
- Favorable performance will result in a desirable reward,
- The reward will satisfy an important need,
- The desire to satisfy the need is strong enough to make the effort worthwhile.

In the case of THUAS this means that students would be motivated about their studies if they recognized a positive correlation between the time they spend on studying and the grades or credits they receive, good performance results in the desired diplomas, the diplomas constitute what the student seeks to achieve, and the desire for this achievement is strong enough to make the studies worthwhile. In order to facilitate that individuals believe in these claims and are motivated to act in favor of the organization, clear information has to be provided to them. A related study confirms this presumption, investigating the relationship between 'communication satisfaction' and the expectancy theory. According to a study of Chiang, Jang, Canter & Prince, groups characterized by high communication satisfaction responded more positively towards motivation components, and were more likely to perform better in the tasks they were expected to carry out for the organization (Chiang, Jang, Canter, & Prince, 2008). It can be concluded that good quality information which manages to communicate THUAS' expectations towards the students effectively, can potentially help increase their motivation. Students who approach their studies with a high degree of motivation, may in

turn be more likely to complete their studies and not give up that easily. According to Zijlstra, both intrinsic and extrinsic motivation influences study success significantly (2014). Thus, student information may be a crucial extrinsic factor.

Stress

A Reuters study from 1996 identified for the first time that *information overload* would contribute to stress. Thus, the cost to business (e.g. people waste time by looking for information) is accompanied by human cost which is characterized by *stress* for the individual (Waddington, 1996). According to Reuters, people can no longer develop effective personal strategies for managing information nowadays. In fact, they were confronted with too much information which is communicated through too many channels, preventing people from developing simple routines for managing information (Waddington, 1996). Various experts confirm the research results and describe situations in which large information volumes and low data quality lead to stress and frustration (Wedding, 2013).

Looking at individuals in an organizational context, the so-called role theory from Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) suggests that stress can derive from role ambiguity, role conflict, and role overload. The theory is interesting because it further presumes that miscommunication is responsible for role stress. The term 'role' refers to the function which an individual fulfills in his or her environment – oftentimes in an occupational context. The theory presupposes a "sender" who communicates information to a "receiver". If the receiver perceives the information as too demanding, ambiguous, or difficult, he or she may experience stress in return (Weiner & Craighead, 2010). The main types of role stressors are role ambiguity, role conflict, and role overload. An example for role ambiguity would be vague student information which fails to communicate clear expectations. Role conflict refers to situations as described by one of the interviewed students who claimed that teachers would interpret certain success criteria in different manners, consequently expecting conflicting results from the students (Student-1, 2014). An example for role overload would be that students see themselves confronted with too many tasks or too

few prerequisites – for instance if they are unable to find certain manuals or templates on Blackboard (Focusgroup-1, 2014).

For each organization, the stressors of role ambiguity, role conflict, and role overload present problems since they lead to strains which may impact people's attitudes, satisfaction, commitment, well-being, and behaviors such as guitting or being absent (Weiner & Craighead, 2010). Other sources claim that role stress can further cause poor concentration, mental block, and poor decision making (Vanishree, 2013). Since all mentioned factors have to be considered as harmful to the THUAS' objective of study success, it is important to counteract role stressors by means of communication. According to the author and consultant Alden Swan, communication is key when it comes to reducing role stressors (Swan, 5 things leaders can do to lessen ambiguity and conflict in the workplace, 2011). In particular, he stresses the need for good communication of information about goals, procedures, and expectations. A particular tool which he further recommends are timelines to let people know what future activities will impact them (Swan, 5 things leaders can do to lessen ambiguity and conflict in the workplace, 2011).

3.3. Improving Information Quality

Reuters' study about the impact of information overload concluded with a recommendation that organizations need to take information management seriously (Waddington, 1996). Moreover, the report from 1996 foresaw that the job of the 'information manager' would gain remarkable importance in the future. Today, information managers are in great demand, and according to Leigh Jasper, CEO of the Australian company Aconex, the CIO (chief information officer) is the most important person in an organization (Jasper, 2011). Next to information management, the discipline of Information Architecture has made it its mission to help people understand their surroundings and enable them to find what they are looking for. This refers to both the digital and the 'real' world (The Information Architecture Institute, 2013). Generally, a peoplecentered approach is emergent in many organizations, as they have recognized the importance of reconnecting with their customers or users (Koning, 2014). Especially with large complex organizations it oftentimes becomes a problem that customers and decision-makers are separated by multiple layers. As a result, companies do not always make decisions which are in the

customer's favor, but are distracted by other priorities. In order to gain true insights and adapt business strategies accordingly, organizations can make use of techniques such as 'Service Design' (Koning, 2014).

In the continuously growing service industry, *Design* is becoming a vital competitive advantage. The underlying concept of Design Thinking can be described as a human-centered approach to innovation, which draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for (business) success (IDEO, 2014). According to the book "This is Service Design Thinking", Service Design helps service providers to innovate the services they offer, although it has not settled for one single definition (Stickdorn & all, This is Service Design Thinking, 2013). Amongst multiple suggestions, Birgit Mager who is president of the International Service Design Network, has defined Service Design in 2009 as follows: "Service Design aims to ensure service interfaces are useful, usable and desirable from the client's point of view and effective, efficient and *distinctive from the supplier's point of view.*" (Stickdorn & all, This is Service Design Thinking, 2013). Birgit Mager further explains that Service Design is the activity of planning and organizing

people, infrastructure, communication, and material components of a service, with the aims of (1) improving the service quality and (2) improving the interaction between service provider and customers (2014). Service design methodologies are being used to fully understand the respective customers or users, and design a service according to their needs (Mager, 2014).

Marc Stickdorn identified five principles of Service Design Thinking which outline the underlying way of thinking which is required to successfully design services (Stickdorn, 5 Principles of Service Design Thinking, 2013):

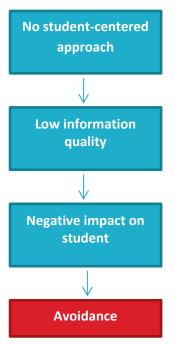
- (1) **User-centered:** Services should be experienced through the customer's eyes.
- (2) **Co-creative:** All stakeholders should be included in the service design process.
- (3) **Sequencing:** The service should be visualized as a sequence of interrelated actions.
- (4) **Evidencing:** Intangible services should be visualized in terms of physical artefacts.
- **(5) Holistic:** The entire environment of a service should be considered.

When looking at the situation at THUAS, it could be helpful to look at the educational service provided from the perspective of the user, namely the students. This approach is further in line with the definition of 'information guality' which is strongly dependent on the satisfaction of the information user. Consequently, Service Design principles can help innovate services at THUAS – in particular with regard to information. As the IT project manager Pieter Gremmen stated, THUAS information environment is not completely user-centered. Whereas the student portal takes a very student-centered approach - involving students into the design process -Blacboard is rather course-centered instead: "It doesn't have the student as a basis of design. There are a lot of things to gain there." (Gremmen, Skype Interview about User-centricity, 2014). Moreover, he emphasized the fact that the information systems are only one criterion of user-centricity. The second one would be the way teachers use the information systems, which allows the conclusion that THUAS' information environment is not usercentered (Gremmen, 2014). However, the ongoing IT projects would aim at improving user-centricity, taking a 'bottom up' approach: By organizing a multidisciplinary think tank, Gremmen

expects to gather new ideas and perspectives on how to improve the way THUAS' information system is being used. In addition, he hopes to gain ambassadors who will provide their colleagues with the necessary motivation to change behaviors (2014). However, it might be necessary to start similar projects not only with regard to the formal information systems but taking a *holistic* approach which considers the full study experience of THUAS' students – and facilitates the necessary exchange between students, teachers, and managers.

Conclusion

One of the key factors causing the problem of 'students avoiding formal information' appears to be that THUAS' approach to student information is **not student-centered**. Despite the fact that IT expert Pieter Gremmen confirmed that user-centricity at THUAS left room for improvement, the students interviewed identified multiple problems with regard to each dimension of information quality (time, content, form). Based on a preliminary assessment, **information quality** at THUAS appeared to be rather low. However, it is unknown whether there is one specific dimension which shows most room for improvement, or whether there are deep-lying problems in all three. Another causal factor with respect to the problem of 'avoidance' is the **negative impact** which low quality information seems to have on the information users. Theories from the field of social psychology suggest that this negative impact could be constituted by stress and demotivation. However, it will be subject to further investigation what exact impact information quality at THUAS has on its students.



Based on this causal chain, the factors critical to a solution became further apparent. It will be vital that THUAS **takes a user-centered approach** to optimize the way students are being informed about their studies. However, this required deep insight into the target group, namely THUAS' student population. It would be necessary to know how they access information, why they are doing so, which obstacles they face, and what impact this has on them personally as much as on their individual study success. Consequently, the knowledge gap lies in the **every-day-life of students** which is highly dependent on each individual and constitutes a 'black box' at this research stage.

Chapter 4: In-Depth Research Methodology

The in-depth research is meant to fine-tune and complete the understanding of THUAS' problem situation as the basis for an effective recommendation. In particular, THUAS' students are subject to further research in order to fill the knowledge gap identified. This chapter is divided into two parts: <u>Conceptual Design</u> and <u>Technical Design</u>. Taking these steps, it was possible to develop research questions, operationalize relevant concepts, and eventually justify the research methods chosen.

4.1. Conceptual Design

4.1.1. Research Questions

Three research questions have been developed, aiming to direct the in-depth research so as to fill the knowledge gap identified.

- (1) How do students perceive information quality at THUAS?
- (2) What emotional impact does information have on THUAS' students?
- (3) To what extent do information impact students' study success?

4.1.2. Research Objectives

Each research question has been developed to fulfill a specific purpose. The following objectives are supposed to clarify *what* knowledge has to be acquired and *why* it is relevant to the research. First of all, it was important to re-assess the **quality of information** by learning about the perception which THUAS' students had of the timing, content, and form of information they were presented with. Based on that, it was possible to draw further conclusions about information quality at THUAS. In addition, critical dimensions have become apparent, enabling tailored solutions to optimize information quality at THUAS.

Secondly, learning about the **emotional impact** of student information at THUAS helped clarify whether or not the following hypothesis could be considered to be valid: "Poor quality information leads to stress and demotivation". Assessing the plausibility of the presupposed causal relationship provoked seminal insights as it clarified whether student information was perceived as rather helpful or harmful. Furthermore, it managed to shed light on which kind of information was favored by students and why. The emerging insights had fundamental implications for possible solutions which needed to be desirable from the student perspective.

Lastly, it was vital to clearly determine the impact which information had on the individual **study success** of students. It was important to not only understand how information made them feel, but also which concrete implications this had for their studies. Clarification of the causal relationship between student information and study success could be considered as a vital stepping stone, when seeking to convince stakeholders to implement the given recommendations. Moreover, it was the client's primary objective to improve study success at THUAS.

4.1.3. Operationalization

To make the research questions 'researchable', the abstract concepts of information quality, emotional impact, and impact on study success have been broken down into measurable units – namely *variables*. Perceptible consequences or effects have been defined as *indicators*, so as to prevent ambiguity and

misinterpretations. Both indicators and variables derived from the expertise as acquired in the course of the literature review.

Information Quality

Variables:	Indicators (high information quality):	Indicators (low information quality):			
Perception of timing of information	 Expressing that information was available when needed Expressing that information was up-to-date Expressing that information was available as often as needed Rating time dimension higher than average in overall assessment 	 Expressing that information was not available when needed Expressing that information was outdated Expressing that information was available for limited time Rating time dimension lower than average in overall assessment 			
Perception of content of information	 Expressing that information was accurate Expressing that information was relevant Expressing that information was complete Expressing that information was concise and compact 	 Expressing that information had errors Expressing information overload Expressing that information was incomplete Expressing that information was vague 			

•	Perception of	•	Expressing that information	•	Expressing that	En	noti
	form of		was easy to locate		information was difficult		
	information	•	Expressing that information		to find	Var	iables
			was easy to understand	•	Expressing that		
		•	Expressing that the		information was unclear	•	Exp
			presentation of information	•	Expressing that the		stre
			was appropriate		presentation of		
		•	Expressing that the correct		information was improper		
			medium was used	•	Expressing that the		
					medium used was		
					unexpected/ ineffective		
٠	Perception of	•	Expressing that information	•	Expressing that		
	additional		was reliable		information was not	•	Exp
	characteris-	•	Expressing that information		trustworthy		den
	tics		was sent to the correct	•	Expressing that		
			person		information has been		
		•	Expressing other		received accidentally		
			compliments	•	Expressing other criticism		

Emotional Impact:

Va	Variables:		s: Indicators (validating hypothesis):		icators (invalidating
				hyp	oothesis):
•	Experience of	•	Identifying stress as a	٠	Identifying relaxation as a
	stress		consequence of		consequence of
			information		information
		•	Identifying related feelings	•	Identifying related
			such as tension/ anxiety/		feelings such as relief/
			mental pressure/ etc. as a		remedy/ comfort/ etc. as
			consequence of		a consequence of
			information		information
٠	Experience of	٠	Identifying demotivation as	٠	Identifying motivation as
	demotivation		a consequence of		a consequence of
			information		information
		•	Identifying related feelings	•	Identifying related
			such as discouragement/		feelings such as
			deterrent/ hindrance/ etc.		inspiration/
			as a consequence of		encouragement/
			information		ambition/ etc. as a
					consequence of
					information
•	Other	•	Identifying other negative	•	Identifying other positive
	experiences		feelings as consequence of		feelings as consequence
			information, e.g. feeling		of information, e.g.
			anxious, insecure, worried,		feeling happy, satisfied,
			confused, left alone, lost		safe, capable,
			etc.		empowered, posted, up-
					to-date etc.

Impact on Study Success:

Variables:		Indicators ((validating	Ind	icators	(invalidating	
		hyp	hypothesis):		hyp	hypothesis):		
•	Facing study	•	Stating that information • Stating that informa			information		
	delay		problems have caused			problems have not		
			failing assign	ments/		caused failin	g	
			courses			assignments/ courses		
		•	Stating that information		•	Stating that information		
			problems have caused			problems have not		
			delayed graduation			caused delayed		
					graduation			
•	Underachieving	•	Stating that in	nformation	•	Stating that	information	
			problems hav	problems have caused		problems have not		
			scoring lower than			caused scoring lower		
			possible (e.g.	exams,		possible (e.g. exams,		
			assignments	etc.)		assignments	etc.)	

4.2. Technical Design

4.2.1. Research Strategy

The chosen research strategy was a **case study** which took place in one of THUAS' academies. It has been decided against a large scale approach, but for a limited scope in which qualitative research methods could be applied 'in the field'. By focusing on a low number of research units, it was possible to gain detailed understanding and deep insight into the specific case. The emerging results were compared by means of triangulation of methods, as opposed to quantification. Consequently, an interpreting and contemplative approach has been taken to illustrate the holistic view of the case.

Due to reasons of accessibility, the Academy of European Studies and Communication Management (ESCM) has been chosen as an appropriate research sample. While ESCM consists of five study programs (ES4, ES4e, ES3, ICM, Communicatie), two specific cases have been selected which will serve as research units: "European Studies" (ES4e + ES3) and "International Communication Management". It has been decided in favor of the international study programs, as they combine Dutch and non-Dutch students – therefore representing the international student population of THUAS, as much as the university's vision of internationalization. Furthermore, the study programs combine minimal differences due to the fact that various teachers are responsible for both programs. In addition, decision-makers of both study programs report to the same person who is the head of the academy.

4.2.2. Research Materials + Methods

The information necessary to answer each research question was concerned with the behavior, perception, feelings, attitudes, and experiences of THUAS students. As a result the key *source* of information was ESCM students, representing the student population throughout the case study. A major focus was laid on students of year 1, since the university emphasized the fact that it was crucial to guide these students to improve study success. ESCM students were able to provide a wide variety of information, acting as respondents who allow insight into their reality and every-day-life as a THUAS students. In order to unlock the potential of this research *material*, a set of three research methods has been developed, being divided into three distinct phases.

(1) Information Diary

The 'information diary' allowed learning about the very personal behavior of students which is difficult to observe. Students would fill into the diary their experience with information every day, by giving a specific example. Based on this example, they would describe how they received the information, assess it critically, explain how it made them feel, and give an indication on the impact this information might have on their studies. Consequently, the case was studied in its natural environment without being present as a researcher). By confronting students with questions for critical reflection elements of contextual interviews have been incorporated. It furthermore enabled students to immediately assess the information they received, which adds much value to the research. According to Marc Stickdorn, it was important to ask customers for direct assessment instead of an overall evaluation taking place in retrospect. According to him, individuals would always remember their first and last impression, but disregard feelings and observations in between (Stickdorn, DesignThinkers Bootcamp 2014, 2014). The 'information diary enabled students to critically reflect on the information received – serving as a basis to discuss at a later stage. The template (*see Appedix 11*) was tested with 4 students from ICM year 3 who filled it in on a voluntary basis.

(2) Focus Group + Personas

Subsequent to the 'information diary', a focus group was arranged to bring together students who had previously filled in the diary. Based on their experience with the information diary, they had reflected on student information already, what enabled them to exchange views and experiences throughout the focus group. The participants were asked to physically deliver opinions about information quality, the emotional impact of information, and impact on their studies, by means of choosing a specific location in the room. This warm-up phase had been adopted from the 'DesignThinkers Bootcamp' and served as a basis for further discussion. Subsequently, strategic questions were asked so as to activate the participants to share their personal experiences and opinions. By means of detailed observation it was possible to see what students had in common and where their positions clashed and why. Based on the focus group, different 'information types' of students could be identified and further illustrated by means of preliminary *personas*. Personas are fictional profiles which represent a particular group based on shared characteristics (Stickdorn & all, This is Service Design Thinking, 2013, p. 178).

(3) In-depth Interviews

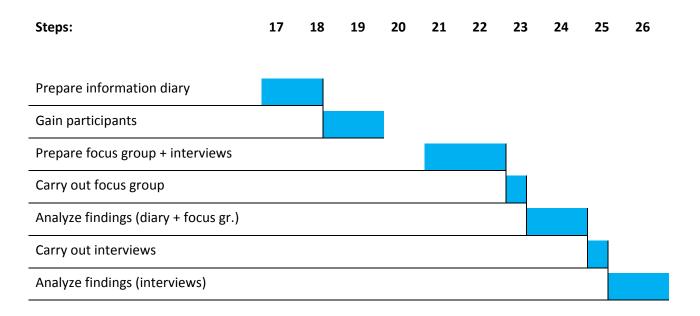
As a last step, the personas were validated and made more realistic by adding content which derived from in-depth interviews. For this purpose, several ESCM students were interviewed who were expected to match either one of the profiles. They were introduced to the persona on hand, asking whether or not they could identify with it. Subsequently, the students were asked more specific questions about their study situation, level of stress and motivation, and perfect-casescenario on how information should be to add value to their studies. The interviews were conducted one-to-one and structured in an open, conversational manner, so as to make the students feel comfortable, while activating them to share personal insights. In was further decided to also include students from year 2-4 at this research stage, since they were expected to be able to critically reflect on their behavior and attitudes towards information over the past few years.

Overview

Phase:	Research material:	Research method:
1)	Individual ESCM students:	Information Diary:
	10 individuals	Template + video instructions as sent to the
	ES3, ES4e, ICM: Year 1	students: See <u>appendix 13</u>
	Contact online	Commitment for period of 5 days
		One information example per day
		Template, covering information gathering, -
		quality, emotional impact, impact on study
		success
		Overall assessment (rating) as basis for
		subsequent discussion
2)	Group of ESCM students:	Focus Group:
	6-8 participants	Summary: <u>appendix 14</u>
	ES3, ES4e, ICM: Year 1	Ca. 40 minutes
		Warm-up exercise + discussion
		Main topics: Information quality, emotional
		impact, study success
		Identifying similarities and differences,
		creation of personas
3)	Individual ESCM students:	Focus Group:
	4 interviewees	Ca. 20 minutes
	ES3, ES4e, ICM: Year 1-4	Open interviews, one-to-one
		Testing persona + gaining additional
		information, e.g. personal background +
		character, study situation + challenges,
		desired situation with regard to information

4.2.3. Research Planning

The in-depth research was carried out over a period of 10 days, namely May 17 to 26, 2014. The below diagram visually illustrates the individual steps taken, as much as their interdependencies. The corresponding *plan of action* which includes all further sub-steps and tasks carried out can be found in *appendix 12*.



Chapter 5: In-Depth Research Results

This chapter is meant to present and analyze key findings which derived from the in-depth research, while disclosing links to the situation analysis and literature review. Firstly, the <u>findings</u> of the in-depth research will be discussed, followed by <u>conclusions</u> in which they will be judged against the background of the in-depth research questions. (More about the approach to analyze the data gathered can be found in appendix 19.)

5.1. Information Quality

Firstly, the research findings did not vary significantly when comparing students from different study programs and genders. This confirmed the presumed homogeneity of the sample chosen. Based on the information diaries a general preference for online communication could be recognized. This was in line with the analysis of 'Generation Y' which presumed that the new student generation was tech-savvy and liked to exchange information online (*see 2.2.3.*). As a result, it could be regarded as positive that the university ran projects to improve THUAS' digital learning environment (*see 2.1.2.*). All four interviewees

confirmed that they used their informal network in order to retrieve information most efficiently. One student even stated that she would trust her friends more than the formal information she received (Student-5, 2014). Two other interviewees mentioned that they tried to avoid formal channels such as Blackboard, as they were too confusing and timeconsuming (Student-4, 2014) (Student-6, 2014). Statements like these appeared to confirm the conclusion of the situation analysis, in which the university's core problem was redefined as 'avoidance of formal information' (see 2.3.). Three out of four interviewees further mentioned Facebook as an effective source to find information. In particular, they highlighted the advantage of information exchange on this platform (Student-5, 2014). This reminded of the first focus group, in which students expressed their wish for a centralized forum (see 2.2.2.).

The information diary required students to immediately evaluate the information received. Interesting to see was that the majority of students assessed these examples very critically. They identified multiple issues, such as information being too late or incomplete. When asked for an overall evaluation, however, students claimed to be rather satisfied with the information guality at THUAS (Focusgroup-2, 2014). This phenomenon visualized the importance of measuring satisfaction immediately. Seven out of ten students provided at least two examples of information which failed in one or more dimensions of information quality. Their main complaints were that information was "too late", "not up-to-date", "not complete", "not accurate" or "unclear". The timing and content was mostly criticized, whereas the form dimension received less criticism. In particular, half of the students experienced one or more examples of delayed information, what was further highlighted as the main point of criticism during the focus group (Focusgroup-2, 2014). Moreover, four out of ten students stated examples of inaccurate or incomplete information in their diaries - a topic that was of less importance during the focus group. Regarding the in-depth interviews, it was striking that students repeatedly criticized information being difficult to find, referring to the form dimension primarily (Student-4, 2014; Student-6, 2014). The reason why this aspect was not mentioned in the information diaries might be that students were asked to state an example of information, thus choosing information they were able to find. A recurring information issue was exam registration, being

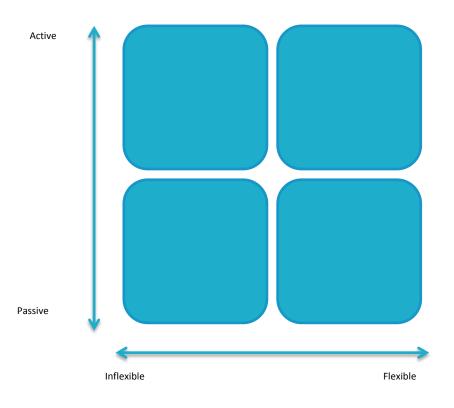
criticized during the situation analysis (see 2.2.2.), information diaries, focus group, and in-depth interviews (Student-4, 2014). Also criticized repeatedly was the fact that students received inapplicable emails or blackboard announcements which were not addressed to them (Focusgroup-1, 2014; Student-3, 2014). One of the interviewees further expressed that this caused her to not take student email seriously anymore (Student-5, 2014). Last but not least, students criticized throughout all research stages that teachers used information tools and channels in their own ways, preventing students from recognizing patterns for their personal information management (Focusgroup-1, 2014; Focusgroup-2, 2014; Student-6, 2014). Also IT expert Gremmen criticized the lack of standardized rules on how to use THUAS' information systems (Gremmen, 2014).

5.2. Emotional Impact

With regard to the emotional impact of information, students responded very differently. In the information diary, a total of 7 students indicated at least one example of information which had caused negative feelings such as *"stress"*, *"confusion"*,

"annoyance" or "insecurity". One student mentioned an example of information which had made him feel "demotivated". The feeling of stress was mentioned 8 times in total and seemed to play a bigger role in students' every-day-life. At the same time, the described experiences differed significantly: Whereas three persons mentioned two to four examples of bad information quality causing stress or other negative feelings, there three other students did not mention negative emotions at all. Although they did criticize the quality of some information examples, this did not seem to affect their emotional state at all. The remaining four students mentioned one example per week in which information had a negative emotional impact. The information diary revealed that the majority of students criticized some aspects of student information, while not feeling an immediate emotional impact. Three out of ten students, however, illustrated that they felt stressed because of poor information quality. When discussing the emotional impact of information throughout the subsequent focus group, the clash of opinions became obvious: Whereas 5 students claimed to feel no emotional impact at all, two students described that they were frequently stressed because of student information. In

particular, they identified delayed information as the key source of stress. This can be related to the stressor of 'role overload' (*see 3.2.*), illustrating a situation in which students were not provided with a necessary prerequisite on time. Whereas 'demotivation' mentioned in only one information diary, one of the interviewees explained the following: For him, 'stress' and 'annoyance' were the first emotional reaction to poor quality information. Once this would happen repeatedly, he would give



up at one point and feel demotivated (Student-6, 2014).

Throughout the in-depth interviews, different information types were interviewed deliberately, so as to compare their behaviors and attitudes. Whereas it was presumed that information types could be clustered according to their stress levels, the interviews inspired a different way of grouping, including the parameters of 'flexibility' and 'activeness', resulting in four different information types.

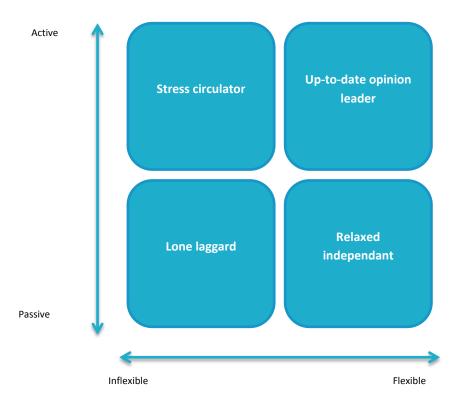
Inflexible vs. flexible

The interviewed students showed different degrees of flexibility in respect to information, leading to different attitudes and behaviors. One student explained that information problems would occur in every bigger organization and were therefore acceptable (Student-3, 2014). According to him, all necessary information could be found on blackboard and he rather enjoyed the freedom of not being 'pampered' too much (Student-3, 2014). Another interviewee made similar comments, highlighting the fact that she would not panic immediately when information was delayed or incomplete, but wait for what will happen (Student-5, 2014). She had a general trust in the system, and regard information problems as 'challenges' (Student-5, 2014). Other students described themselves as less flexible and explained that they needed clear structures and instructions. Otherwise they would feel demotivated and lost (Student-6, 2014). One student mentioned that she likes to have control over situations. In the case of student information at THUAS, she would feel exposed to a system which does not work for her, causing stress and insecurity (Student-4, 2014).

Passive vs. active

In addition, students' behaviors appeared to differ in terms of activeness. Some students described themselves as rather passive with regard to information, not pro-actively looking it. One interviewee explained that he had given up on chasing information because it caused him too much stress and frustration (Student-6, 2014). Another interviewee gave the example of a peer who was missing out on essential information because he was rather uninvolved and not actively searching for it (Student-5, 2014). On the other hand, students expressed that they were pro-active and well-connected so as to receive all

information possible. One of the interviewees explained that she had developed a strong social network including fellow students and teachers, enabling her to contact others and clarify unclear or missing information (Student-4, 2014). Another student gave the example of fellow students who were always up-to-date and share information openly on Facebook (Student-5, 2014).

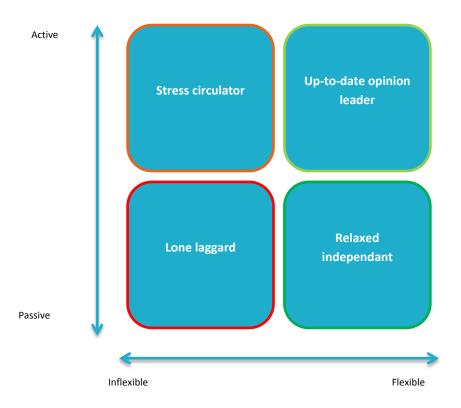


Based on the insights from the in-depth research, four distinct personas could be developed, illustrating the interrelation of students being 'active' or 'passive', as well as 'flexible' or 'inflexible' regarding information. The corresponding information types of the 'up-to-date opinion leader', 'relaxed independent', 'stress circulator', and 'lone laggard' are further introduced in *appendix 20*.

5.3. Study Success

Looking at the information diaries, it was striking that for almost every day, students stated an example of information which had high relevance for their studies. Information was either needed to receive certain credits, pass an assignment, or receive their first year diploma. On average, students labeled 4 out of 5 information examples as *"necessary"*, *"very important"*, or *"essential"*. When asked whether information problems had ever caused them to fail exams or assignments, 8 out of 10 students disagreed. Furthermore, 8 students disagreed with the statement that information problems might cause them study delay. 8 other students disagreed with information problems having caused them to score lower than they could have scored in exams or assignments. The students who stated that they could score higher if there were less information problems, were students who indicated that information quality had no emotional impact on them. This might be a hint that without causing stress or demotivation, bad quality information might still prevent them from releasing their full academic potential.

Based on the information diaries, however, no clear correlation between information quality and study success could be found. The in-depth interviews served to further understand the relation, asking for examples in which students had underachieved in any way possible. Given the fact that also students from higher years were interviewed, multiple examples were provided, ranging from missed deadlines to failing exams as wrong contents have been studied (Student-6, 2014). One interviewee provided the example of a peer who was facing study delay due to the fact that he was missing out on information about deadlines and other success criteria (Student-5, 2014). The examples hinted at an existing correlation between information quality and study success. However, it became obvious that it was impossible to make this measurable by relying on the student perspective, not carrying out an objective long term study or experiment.



Looking at the four personas identified, the impact of information on study success could be further differentiated. Based on the in-depth interviews, it could be concluded that students who described themselves as rather 'inflexible', showed less tolerance to poor information quality, accompanied by examples of underachievement. A student who could be categorized as a 'stress circulator' described situations in which she panicked because of missing information, costing her 1-2 hours which she could have spent on the concerned assignment instead (Student-4, 2014). She had learned to avoid these situations by relying on her social network (Student-4, 2014). Even worse appears to be the situation of a student who could be categorized as a 'lone laggard'. Due to the fact that he was less interconnected to others, he missed out on information which was essential to pass assignments and exams, eventually resulting in study delay (Student-5, 2014). On the contrary, students who showed higher flexibility appeared to face fewer problems with information, claiming it would not impact their emotional state or study success. The most comfortable appeared to be the 'up-to-date opinion leader' who does not only satisfy own information needs, but further helps informing (Student-5, 2014). Also the 'relaxed fellow-students independent' was not negatively affected by information problems but explained to react to them with a flexible attitude (Student-3, 2014).

Conclusions

According to the in-depth research, information guality at THUAS is not always perceived as poor, but examples illustrated that there is room for improvement. Students criticized in particular delayed and incomplete information, as well as information being difficult to find. However, these deficits did not appear to affect all students. Whereas around 30% of the students were found to be stressed because of information problems, the majority of students explained to not feel any emotional impact. Four personas have been developed to visualize the different 'information types', taking into account the differentiating factors of 'flexibility' and 'activeness'. Based on the personas, the relationship between information quality and study success could be further explained. In-depth interviews revealed that students who were rather 'inflexible' information types would experience negative consequences on their studies due to information problems. Those who were rather 'flexible' and independent disagreed with information problems impacting their study success.

These findings have implications for solving the problem of 'students avoiding THUAS' formal information system'. In fact, the problem could be redefined as follows: The current information environment serves the needs of **some information types only.** When thinking of possible solutions, it might be necessary to firstly raise awareness about the existence of different student information types. Subsequently, it might be possible to remove major obstacles and enable a reorganization of the way student are being informed at THUAS, taking into account all different information types.

Chapter 6: Conclusions

THUAS' information environment is characterized by both formal and informal information being transferred through various different tools and channels. Students regard their teachers as the key source of information. Teachers predominantly use student email and Blackboard to communicate with students, while the so-called "module book" or "course manual" represents the center of course-related information. Each teacher is responsible to communicate the required information but standardized rules of how to approach the task do not exist. Looking at the study experience at THUAS from the student perspective, it was found that many important touch points between students and THUAS were related to information. In particular, information was an essential prerequisite to pass assignments or exams, gain all necessary credits, and eventually graduate on time. A general shift from formal to informal information has been identified, with some students particularly trying to avoid formal information systems (e.g. Blackboard). In fact, students had developed their own strategies of effective information search. Looking at the reasons for this, the main problems in THUAS' information environment appeared to be related to information quality. Many students criticized that information was delayed, incomplete, or difficult to find. In particular, students were dissatisfied with exam registration, accidentally received information, and with the fact that each teacher communicated information differently. Students criticizing all three dimensions of information quality led to conclude that there was room for improvement.

Information problems were found to have negative consequences for both information users and the organization providing it. Taking the student perspective, poor information quality was expected to cause negative emotions, such as stress and demotivation. Field research showed that the majority of students did not perceive a (negative) emotional impact, whereas about 30% of all students frequently experienced stress caused by poor information quality. Based on these insights, four personas have been created, representing different student information types with regard to flexibility and activeness. It was found that inflexible students were more likely to experience stress caused by information problems, than flexible information types. Furthermore, a correlation between information quality and study success appeared to exist, although a long term study or experiment would be necessary to verify this. From the student perspective it was learned that some students missed out on important information which caused them to fail exams or assignments, eventually causing study delay. Especially information types who combined inflexibility with passiveness appeared to fall into this category – thus, constituting the 'sufferers' in the current information environment.

Looking back at the client's objective of increased study success, it has to be acknowledged that a clear correlation with information quality could not be proven to a sufficient degree, by taking the sole student perspective. In order to make the relationship measurable, it is recommended to carry out an objective long-term study by means of an experiment⁸. Form an innovations perspective, however, it can be only valuable to start optimizing student information at THUAS today, instead of proving *possible* consequences which have never been experienced before. By initiating a discussion about student information and collaboratively searching for ways of optimization, it will be possible to design tailored solutions which can be perfected by means of iteration.

⁸ The experiment could be a pilot project of information optimized according to the students' wants and needs, which will be introduced to one class of a specific study program. After one year, the study results of students from that class could be compared to the results of their fellow students who were informed the 'traditional way'.

Chapter 7: Recommendations

Starting with a <u>Strategic Justification</u>, the implications of the research conclusions for the communication strategy are explained. The subsequent <u>Communication Objectives</u> lead to the <u>Communication Strategy</u> which is divided into two parts, namely main *strategic* ideas and a *tactical* plan for implementation.

7.1. Strategic Justification

THUAS's mission is to provide high quality, innovative education. Thus, a forward thinking approach to study success *and* information management is crucial. Despite the fact that THUAS established projects to improve the university's digital learning environment, it will be instrumental to look at the information environment holistically. For this purpose, it will be vital to let students and teachers co-create to develop innovative solutions collaboratively. By challenging the status quo and making change happen, THUAS will be able position itself in the best way possible, while strengthening the university's community - laying the foundation for a culture of transparency, knowledge sharing, and study success.

It was decided to design a communication strategy which is aimed at THUAS' teachers, as they have direct influence on student information. Whereas THUAS' management already moves into the right direction by improving the digital learning environment, *informal* communication remains untouched and THUAS' teachers are left to their own devices to manage this challenge. As a result, it will be instrumental to unlock the potential of those resources by providing teachers with the knowledge and tools to take THUAS' student information to a level which serves all students – regardless whether they are active or passive, flexible or inflexible information types.

7.2. Communication Objectives

A strategy always aims to turn objectives into measurable results (Beuker, 2014). Consequently, specific communication objectives have been developed, seeking to clearly define the contribution communication can make to optimize THUAS' information environment. For this purpose, three SMART objectives have been defined:

- (1) *Knowledge-based* objective: By October 2014, 80% of all teachers (+ *students*) will be aware of the existence of different 'information types'.
- (2) *Attitude* objective: By March 2015, 60% of all teachers will participate in at least one offered workshop <u>or</u> review input from the 'idea box' more than twice. (+ 60% of all students will submit input to the virtual 'idea box' at least once.)
- (3) *Behavioral* objective: By June 2015, 50% of all teachers will change or optimize at least one aspect of the way they inform students. (+ 50% of all students will confirm a positive change in student information.)

The concerned target groups are **teachers and students** at THUAS. Whereas teachers constitute the *primary* target group, students are *secondary* targets. In addition, THUAS' management will be regarded as a partner who needs to be updated about the project's progress.

7.3. Communication Strategy

The communication strategy has been developed according to two different models, combining perspectives of Marketing⁹ and Internal Communication¹⁰. The developed strategy is presented in an innovative manner so as to 'practice what is being preached', visualizing the strategic ideas and tactical plan by means of intuitive summaries and infographics. *In appendix 21, the traditional (written) version can be found.*

⁹ "Setting up a strategic communication plan" by Vos

¹⁰ "Gower handbook of internal communication" by Wright



Approach:

Internal communications campaign to enable dialog between information users and providers -> Pro-active, innovative, inclusive, transparent

Tone-of-voice = language of the user: Straightforward, to the point

Positioning:

Corporate internal communication for top-management, in collaboration with steering committee

First information, then transformation

Central theme:

"2-way Information" Share. Learn. Innovate. @THUAS

Exchange information instead of oneway communication

Learn about people's information needs to communicate more effectively

Lay foundation for improved study success by providing same prerequisites to everyone

-> Importance of dialog + call for action

-> Vision of change and innovation

Key message per target group:

Teachers – "By understanding students better we can unlock their full academic potential!"

Students – "Things can change with your contribution!"

2.

Sept '14 Oct '14 March '15 June '15 Preparations Phase 1 Phase 2 Phase 3 Follow-up

Phase 1: Campaign kick-off

Phase 1 is about raising **awareness**. Introduction emails will be sent to teachers and students. Teachers will receive an animated video and students a personality test to identify their information type. This aims to introduce the topic and win over members for a steering committee.

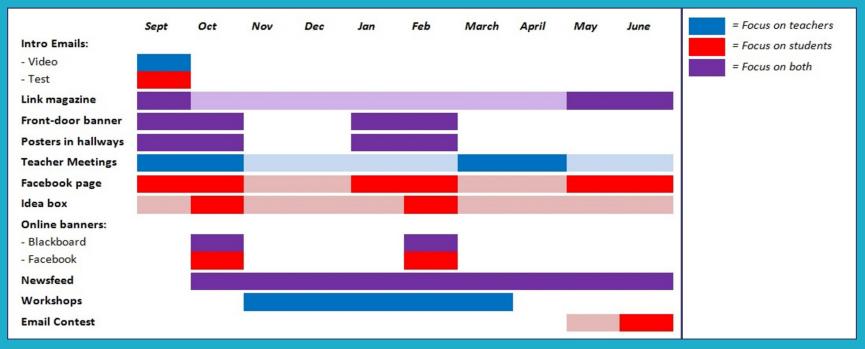
Phase 2: Sharing & Learning

Phase 2 is about changing people's attitude by **involving** them. A virtual "idea box" will be introduced in which problems and ideas for student information can be shared. Workshops will be offered to analyze the input, allowing teachers to slip into the shoes of their students.

Phase 3: Innovating

Phase 3 is about taking **action**. In the newsfeed and academy meetings best practices will be shared to encourage each other. Students provide feedback, reassuring teachers of their efforts. Finally, a contest will honor the teacher who has innovated student information significantly.

Full communication mix:



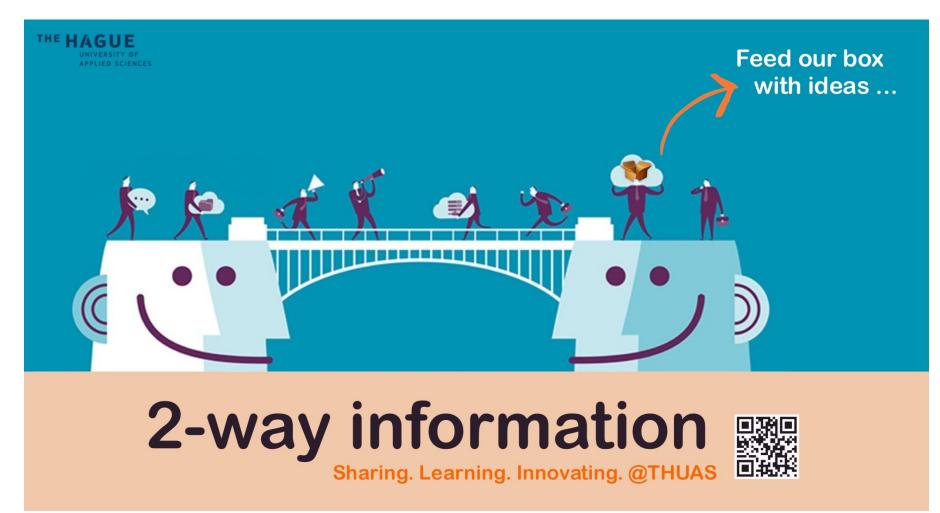
Responsibilities:

The campaign will be navigated by a **project manager** who will work 20 hours per week. He/she will guide a **steering committee**, consisting of 10-15 students and teachers from different academies. The committee will support the project implementation, while acting as *ambassadors*.

Budget:

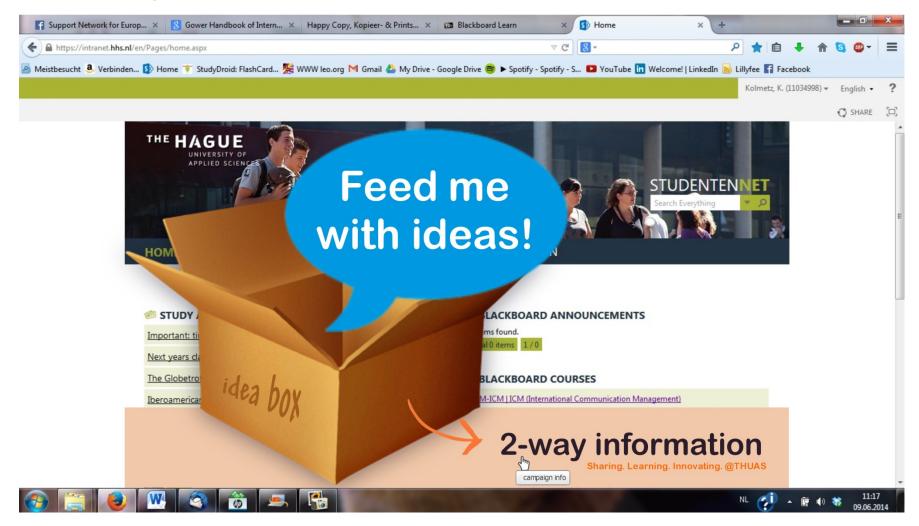
The needed budget is expected to be a total of 20.000 Euros, covering a project period of 12 months. 85% of the budget will be spent on the salary of a project manager. An alternative concept would be to allocate this role to existing staff that still has capacities. More detailed information can be found in <u>appendix 21</u>.

Key visual:



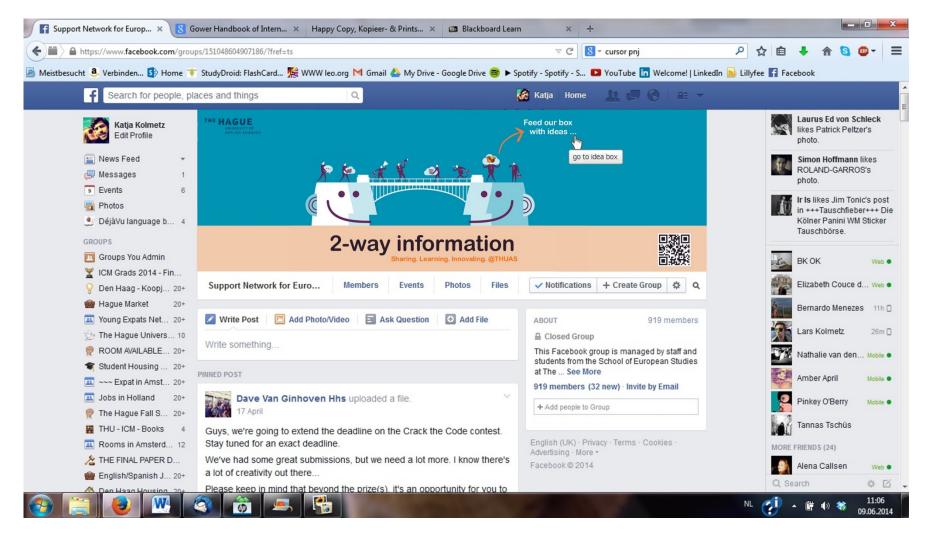
Idea Box:

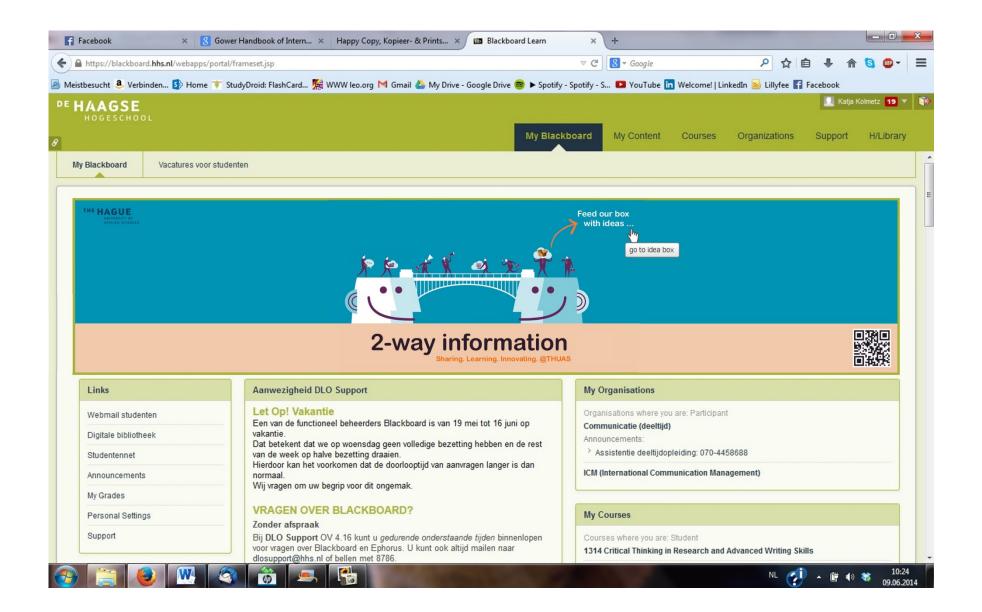
Pops up when visiting the student portal.



Online Banners:

Positioned in places where students look for information.





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Appendices

Appendix 1: Research Proposal

1. Problem Situation

1.3. Client Background

The client of this final thesis project is **The Hague University's Lectoraat Change Management** – in particular the research group member Mr. Wouter van Dam who is the *project mentor*. The Hague University (De Haagse Hogeschool) is a university of applied sciences which is based in the Netherlands.

As the 28th research group of The Hague University of Applied Sciences (THUAS), the Lectoraat Change Management has been officially inaugurated on March 5, 2014, led by the lector Mr. Jacco van Uden. According to THUAS, research groups build a bridge between education and professional practice by conducting research about a certain topic (The Hague University of Applied Sciences A, 2014). The research group Change Management follows this mission by looking at management from different perspectives, seeking to overhaul traditional ways of thinking (The Hague University of Applied Sciences E, 2014).

1.4. Client Objective

The client's objective is to **improve study success** at THUAS (Dam, 2014). According to the university, 'study success' describes the number of students who complete their studies within a specific period of time. With regard to THUAS' study programs, this period is usually 3-4 years for a bachelor degree, and 1-2 years to attain a master's title. Consequently, the desired situation is that all students complete their studies within the designated period of time.

Numerous initiatives have been introduced to reach this objective, but none of them has proven to impact study success significantly (Dam, 2014). As a result, the client seeks to take an alternative approach and starting point, by seeking to **optimize the way students are being informed** about their studies. In his opinion, improved student information will be a vital prerequisite to reaching the objective of improved study success at THUAS. Looking at it from the perspective of process management, the client regards information as the 'oil for the machine' which can either accelerate or hinder the students' process towards study success (Dam, 2014).

1.5. Problem Definition

As *briefed* by the project client, the problem identified was a **lack** of study success at THUAS, meaning that not enough students are graduating from their studies within the designated period of time (Dam, 2014). Nevertheless, lacking study success is a multifaceted problem with various factors contributing to it (e.g. students' pre-education, intellectual capacity, quality of education, organization providing it (Dam, 2014)).

Yet another factor could be the way students are being informed about their studies, as presumed by the client. During the client's experience as a teacher, he has observed that many students lacked overview of their studies. Having an overview means to have a broad and comprehensive view of something (The Free Dictionary, 2014). If students fail to have an overview of their studies, this means that they are not able to see 'the whole picture' (e.g. study structure and goal). As a result, they may approach their studies in a rather shortsighted manner. They looked at their studies as a 'hurdle race', while being unaware what was expected from them – a situation which causes uncertainty and stress (Dam, 2014). According to the client, insufficient student information can be held accountable for this **lack of overview** which is therefore a *communication issue*.

1.6. Research Scope

It is important to identify the limitations of the final thesis project so as to strictly determine the research *scope*. Taking the communication perspective, the research will focus on the communication issue 'students lacking overview of their studies'– rather than tackling the overall problem 'lack of study success'. The resulting recommendations will not solve the multifaceted problem, but contribute to its solution by suggesting an optimized way of informing THUAS' students. Making this contribution measurable, however, will not be the primary focus of this research.

Since students will be the center of the research, it will be vital to gain insight into their study experience at THUAS. Employee concerns such as HR matters will not be part of the research, but solely those information systems the students are in touch with. This way, THUAS' information climate will be evaluated from the student perspective. Based on this evaluation, a communication strategy can be suggested, aiming to optimize the information climate in a way that will allow students to complete their studies on time.

1.7. Target Group and Stakeholders

The research will be directed to students, teachers and managers at THUAS. All three groups would eventually benefit from an optimized information climate. Therefore, they constitute the research *target groups*. However, the project's success will further depend on various *stakeholders*; most of them part of the micro environment of The Hague University.

2. Theoretical Framework

Literature about Information Technology and Service Design will be used to look at THUAS' information environment from different perspectives. In particular, theories and models from the field of **Information Technology** will help explain how a desirable information system works. As a next step, the approach of **Service Design** will be helpful with regard to finding innovative solutions of how to optimize the way information is being transferred at THUAS.

3. Research Objective

The objective of the final thesis project is to develop a *communication strategy* which will optimize THUAS' information environment to make it more effective from the student perspective.

- *By:* **1.** Mapping the current information environment at THUAS
 - **2.** Understanding the study experience at THUAS with regard to information
 - **3.** Identifying problems in the information environment and exploring their causes
 - **4.** Exposing the consequences which result from these problems
 - Clarifying the relationship between information problems and study success

4. Central Question and Sub-questions

4.1. Central Research Questions

- (1) What characterizes the current information environment at THUAS?
- (2) What role does information play in the study experience of THUAS' students?
- (3) What are the main problems in THUAS' information environment?
- (4) Which consequences result from problems in the information environment?
- **(5)** What characterizes the relationship between information problems and study success?

4.2. Sub-questions

Q1: What characterizes the current information environment at THUAS?

- How are THUAS' formal and informal information systems structured? (Qual.)
- Which strong and weak points does THUAS' information architecture have? (Qual.)
- Which tools and channels are being used to communicate with students? (*Qual.*)
- What role does informal communication play? (Qual.)

Q2: What role does information play in the study experience of THUAS students?

- What characterizes the ever-day-life at THUAS from the student perspective? (Qual.)
- What information is necessary from their point of view? (Qual.)
- How do students acquire the information they need? (Qual.)
- How do students prefer to acquire and process information? (Qual.)

Q3: What are the main problems in the information environment?

- How do students assess the way they are being informed by THUAS? (Qual.)
- What are the main bottlenecks from the student perspective? (Qual.)
- What does theory say about effective information management? (Desk)
- What characterizes a desirable information system according to experts? (Desk + Qual.)
- How do other organizations manage information? (Desk + Qual.)

Q4: Which consequences result from the problems in the information environment?

- How satisfied are students with the information climate at THUAS? (Qual.)
- How does information contribute to their study experience? (Qual.)
- How does the information they receive make them feel? (Qual.)
- What implications does this have for THUAS? (Qual.)

Q5: What characterizes the relationship between information problems and study success?

- What do students need in order to complete their studies on time? (Qual.)
- How does information contribute to completing their studies on time? (Qual.)
- What enables students to complete exams and courses successfully? (Qual.)
- What are the perceived consequences of information problems with regard to their studies? (*Qual.*)

5. Research Methods

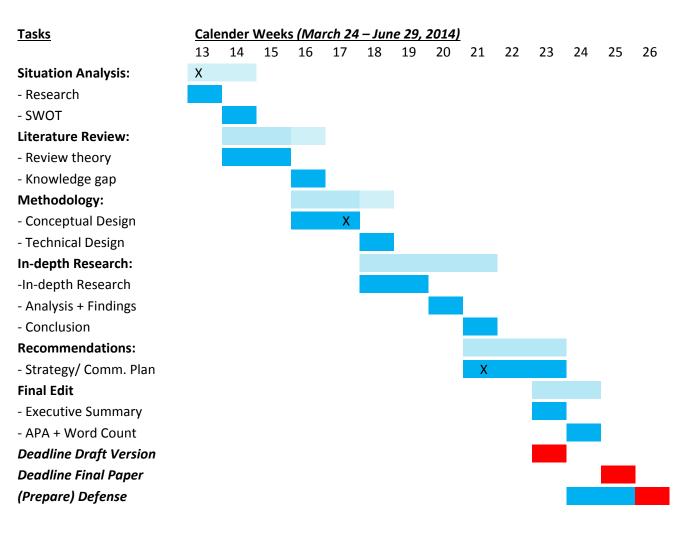
Qualitative research will be critical to the success of the research project on hand. In particular, research question 1, 2, 4, and 5 will have to be answered by qualitative research, whereas question 3 will consist of a mix of qualitative- and desk research. Consequently, the situation analysis consists of both, desk- and field research, whereas the literature review will focus on *desk research* only. The subsequent in-depth research will be characterized by *qualitative research*. *Quantitative research* will not be applied, but it was decided to focus on qualitative field research as inspired by the concept of Design Thinking. An initial client brief and various de-briefings led to an initial understanding of the situation. Subsequently, a focus group with six students was organized so as to see whether they would confirm the communication issue as defined by the client. Their input was complemented by additional desk- and field research in the subsequent situation analysis. At this stage it was vital to understand the problem context, including the organization of The Hague University and the ecosystem surrounding it. Consequently, the core problem could be redefined, and causes as well as bottlenecks became apparent. Based on these findings, a literature review has been conducted, including books and theories from the fields of information technology, psychology, and service design. Looking into how similar problems have been approached in the past, it was possible to gain better understanding of the factors influencing the core problem. Subsequently, a knowledge gap could be determined which led to research questions for the succeeding in-depth research. Deciding for the research strategy of a case study, methods used in the in-depth research were an 'information diary', focus group, and in-depth interviews. This enabled deep

insight into the unique situation of THUAS which was decisive to design a tailored solution to the communication issue on hand.

6. Planning Schedule

The Gantt chart is meant to visually illustrate the planning schedule for the final thesis project. Aiming to complete its final version by June 13th, the schedule includes the draft version as an important intermediary product to be delivered on May 25th, 2014.

Moreover, the Gantt chart refers to three milestones in terms *meetings with the supervisor*. These meetings will discuss vital steps of the project, namely the research proposal, the in-depth research methodology, and the final recommendations. At the same time the meetings will help to make sure that the researcher is on the right track. The first meeting is planned for calendar week 13, the second one for week 17, and the final one for week 21. Ad-hoc questions might be addressed via e-mail if possible.



Appendix 2: Research Approach + Key Terms

The client brief and de-briefings led to an initial understanding of the situation. Subsequently, a focus group with six students was organized to see whether they would confirm the communication issue as defined by the client. Their input was complemented by additional desk- and field research as part of the situation analysis. It was vital to understand the problem context, including THUAS and its ecosystem. The core problem could be redefined, and related bottlenecks and causal factors became apparent. Based on these findings, a literature review has been conducted, including books and theories from the fields of information technology, psychology, and service design. Shedding light on the core problem identified, it was possible to gain better understanding of the factors influencing it. A knowledge gap could be determined, leading to research questions for the subsequent in-depth research. Deciding for the research strategy of a case study, used methods were an 'information diary', focus group, and in-depth interviews. This enabled deep insight into the unique situation of THUAS which was instrumental to design a tailored solution to the communication issue on hand.

Information System:	Aims to support operations, management and decision making of an organization. The term refers to the information and communication technology (ICT) used, as well as to the way in which people interact with this technology in support of business processes (Kroenke, 2008).
Information	Information architecture is about helping people understand their
Architecture:	surroundings and enable them to find what they are looking for. This includes the digital as much as the real world (The Information Architecture Institute, 2013).
Information	The term information environment describes THUAS' overall situation
Environment	with respect to information. Combining the fields of Information Technology and Communication, it refers to both, information being communicated in a formal <i>and</i> informal manner.
University:	Institute of higher education (e.g. The Hague University of Applied Sciences).
Academy:	One department/ faculty of the university, consisting of several <i>study programs</i> which share a common field of expertise (e.g. Academy of European Studies and Communication Management).
Study Program:	Studies being offered by the university (e.g. International Communication Management).
Study	Each study program consists of several study courses which transfer

- Course:
 content-related knowledge or skills (e.g. Integrated Marketing

 Communication, Language Proficiency, Project Management).
- Class: The students of a *study program* may be divided into several *classes*, namely smaller groups in which they attend workshops or coaching sessions.

Student-6	Student from ES4 year 2, male	In-depth Research (see <u>Appendix 16</u>)
		In-depth Research (see <u>Appendix 17</u>)
		In-depth Research (see <u>Appendix 18</u>)

Appendix 3: Student interviewees

APA reference	Details	Usage
Focusgroup-1	Focus group with five students from ES4 year 1: Four male, one	Situation Analysis (see <u>Appendix 3</u>)
Focusgroup-2	female Focus group with seven students: Four students from ICM year 1, three students from ES4 year 1;	In-depth Research (see <u>Appendix 13</u>)
	four male, three female	
Student-1	Student from ES3 year 1, male	Situation Analysis (see
Student-2	Student from ES4 year 2, female	<u></u> ,
Student-3	Student from ES3 year 1, male	Situation Analysis (see <u>Appendix 7</u>)
Student-4	Student from ICM year 3, female	In-depth Research (see
Student-5	Student from ICM year 3, female	<u>Appendix 15</u>)

Important: Each student was interviewed only once!

Appendix 4: Stakeholder Analysis

Support Staff:

Most study programs include support staff positions, such as "Personal Coaches", "Coaching Assistants", or "Tutors". These positions are assigned to either teachers or (alumni) students who are supposed to guide a specific class throughout their studies. Especially in study year one and two, they play an important role in helping the students obtain information and find their way around. On top of that, most study programs have a so-called "Student Counsellor" who is supposed to help students in case of study-related or personal problems (The Hague University of Applied Sciences D, 2014). Throughout preliminary research, however, the *Student Counsellor* has not been mentioned as a possible source of information by any student interviewed.

Support Offices:

Support offices are specialized offices such as the "Career Center" or "International Office". The responsible staff is expected to provide help and information to students within their field of expertise. Throughout preliminary research, students have repeatedly criticized that they are **not aware of the offices' purpose and responsibilities** (Focusgroup-1, 2014). As a result they fail to use their services effectively.

Administration:

The administrative departments of THUAS interact with the students through "Osiris" mainly, a digital platform for exam registrations and the follow-up of grades and credit points. Usually, there is no personal communication between the administration staff and students. Only in case of problems with registrations or credits, the students look for the responsible staff. According to the students interviewed, they **frequently experience problems** and strongly criticize this part of THUAS' information system. They even portray cases of students who dropped out of their studies due to miscommunication with administrative departments (Focusgroup-1, 2014) Moreover, some study programs are being confronted with documents produced by the administrative departments like "OER" which is extensive and difficult to understand. According to Mr. van Dam, teacher of European Studies, it is a **management document** which is mistakenly being provided to students (Dam, 2014). By students, the document has not been mentioned as a possible source of information.

Appendix 5: Customer Journey Mapping

On Wednesday, March 19, 2014, a focus group has been arranged with 5 students from European Studies year 1. They were asked to complete a customer journey map, first individually and later in a group. The purpose of the Customer Journey Mapping session was to figure out whether the hypothesis of ineffective student information was true, and lay the foundation for subsequent sessions so as to draw a holistic picture of how THUAS students experience their studies. The complete video of the session with European Studies year 1 can be derived from:

http://www.youtube.com/watch?v=n2nsaqNJDh0&feature=shar e&list=PLRc7S4OPsTE7I7HdMdDkvkZaVXbztx7pi

The following instructions were given: (1) State your personal goal (what do you want to achieve by studying at THUAS?); (2) state all actions necessary to reach that goal; (3) identify related touch points and their relevance with regard to reaching your goal.

Goals:

For most of the participating students the primary goal was to complete their studies successfully and obtain a bachelor degree. One student added that for him it was more important to acquire knowledge than a degree.

Actions:

The actions necessary to reach their goals can be summarized as follows:

- Pre-study phase: Choose study, apply at HHS, arrive in The Hague, introduction week at HHS.
- During-study phase: Follow courses, take exams, receive support, choose specialization, go on exchange, do an internship, write final paper.

What stroke was the fact that students talked mainly about the pre- and during study phase – rather than elaborating on the period of graduation and the post-study phase. This might be due to the fact that the group of students was from year one only. At the same time it might be a hint that the students approached their studies rather shortsightedly.

Touch points:

For the previously mentioned actions, the students identified numerous touch points and gave their opinion on whether they worked well (positive) or were problematic (negative).

Positive:

- Meeting classmates during the introduction week (pre-studies)
- Using the HHS timetable application instead of Webber (during-studies)

Negative (pre-studies):

- Problems with accommodation
- No information before arriving in The Hague (e.g. OV Chipkaart)
- No information about which office is for what purpose (e.g. International Office)
- Information is spread out rather than to be found in one file
- No overview of course contents before classes start, only difficult names available
- Unclear options of course selection prior to studies

Negative (during-studies):

- Problems with exam registration, insufficient reminders
- Osiris is perceived as confusing, procedure for exam registration has not been explained
- Circumstantial Blackboard enrolment for courses
- Difference between blackboard and student portal appears to be unclear
- Blackboard does not work properly on Apple computers
- Announcements overload on Blackboard

- No forum available (or known) to exchange information
- Talking to teacher because information cannot be found
- Confusion about how to use the manual
- Difference between manual and module book unclear
- Different teachers use the manual differently
- Information overload in some manuals
- Facebook group is not anonymous, students would prefer anonymous forum
- Study support service is unclear, where to get what information?
- Not enough information about specialization and no help in choosing, lecture not useful
- Specialization form had to be completed on short notice, based on incomplete information
- Difficult to find information about exchange, including options and criteria
- Not enough information about exchange, lecture too superficial
- HHS website shows internships when clicking on "exchange"
- Possible future job profiles are unclear, what can be done after graduation?
- Students contact fellow students for information which is not always reliable
- Coaching assistants are not perceived as useful, students claim they would not care

Appendix 6: Interview with Jacco van Uden

On Tuesday, April 1, 2014, Mr. Jacco van Uden who is the lector of the research group Change Management has been interviewed about the organization of THUAS. The interview took place in the office of Lectoraat Change Management, and required one hour of his time. Questions were asked about THUAS' organizational structure, processes of change, as well as about accreditation.

Mr. van Uden mentioned THUAS' Executive Board as responsible for the university's management, being supervised by the General Council. Moreover, he stated that the day of the interview was the first working day of THUAS' new president Mr. Leonard Geluk. Consisting of both a public (bachelor programs) and a private component (master programs and professional courses), THUAS depends on **governmental subsidies**. Consequently, the university is subject to **external accreditations**. These accreditations take place on program level, as well as on institutional level. In order to prepare these decisive accreditations, internal audits are being carried out in advance. The next (external) institutional accreditation has been postponed to either 2015 or 2016 due to the current change processes at THUAS.

Being part of the university's committee which advises the Executive Board on organizational change, Mr. van Uden explained which current developments THUAS was undergoing. He confirmed that the university's academies were being rearranged so as to enable better control by the management. In order to narrow their span of control, academies are being reshuffled and merged. However, this is only one part of the so-called **Organizational Development Program**. In fact, the program consists of three distinct stages which are being further described as follows:

1) Optimizing the existing organization:

Current programs are being run so as to optimize the organization as it is. The interviewee made use of the metaphor of 'low hanging fruits' to explain this approach, meaning that there things can be changed in the organization, without changing the organization itself. Examples for this are projects about internationalization, institutional research, study & career, and a centrum for professionalization.

2) <u>Redesigning academies:</u>

At this moment, THUAS is entering stage two of the Organizational Development Program. This phase is vitally important with regard to the next institutional accreditation. Academies are being rearranged and merged into bigger faculties, putting away with the old label 'academy'. Technically speaking, 12 academies will merge into 7 faculties. This further means that numerous positions have to be relocated. Several positions in middle-management will fall away due to the mergers, whereas additional 'program manager' positions will be introduced.

3) <u>Redesigning service departments:</u>

In the last stage of the Organizational Development Program, the university's service departments will be redesigned. Examples for service departments (support staff) are HRM or IT.

Appendix 7: Interview with Wâtte Zijlstra

Location: Poseidon Building – 6th floor (Communicatie and Marketing)

Date: 12/06/2014

Interviewer: Bernardo Menezes

Interviewee: Mr. Watte Zijlstra

Time (Start/End): 14.00 to 14.30

What is your definition of study success?

- There are many definitions, depending on which angle to tackle
- On HHS it is the percentage of students who end up graduating
- The main goal is to minimize drop outs
- Students who pass the first year could also be seen as study success (or students who do not pass the 1st year but understand that they need to change and choose another course – can also be study success)

• For a student study success may be something completely different

What is being done to improve study success at THUAS?

- It's a topic nationwide, being in the agenda in every institution of Holland
- Society as a whole is losing too much money with dropouts rates
- Between 2009 2012 a lot of money from the government has been spent to improve study success
- Different student groups have different study success,
 e.g. girls doing better than boys
- Immigrants have more problems (Morocco, Antilles, Suriname, etc.)
- In the last four years it has been tried a lot to diminish the gaps between them, but it did not succeed/ the date didn't improve
- However, it has been learned what is good and not good
- At this moment: Focus on the teachers and professors, having discussion with them to see how they can improve

- Creating an inclusive learning environment
- Career center to get support and advice, workshops, etc.

What are the results of these efforts?

- Study success is in the Agenda for 10 years in Holland (US for decades)
- Will take a while to see results, experimental phase at the moment, not improving yet
- Necessities to enable change: Paradigm change, culture change (e.g. learning to work together, inclusive culture)
- Teachers need to be more aware of their bias
- System needs to be changed (more modern and flexible)
- Student support needs to be institutionalized (e.g. more support classes)
- Teachers think of excellence (students who are better than others), but it needs to be more focused on individual characteristics

Is Study progress improving? What is your prediction?

• It's not improving. will take many years

 Also has a political background: Needs time for laws to be passed etc.

Which factor influence study progress in your opinion?

- Many factors, that's why is so complex
- Need to distinguish between student factors, system factors and learning environment (including teachers and society)
- Intellectual capital, social capital, cultural background = very important
- Vital factor: To what extent is learning environment inclusive? (sort of support, teachers, teaching style, curriculum)

In your opinion, does the way students are being informed about their studies influence study success?

- Yes, especially first information on their study choice
- Providing information is not enough, but learning process needs to be facilitated
- Information prepares the student, and manages expectations

- Not enough is done in this area
- More attention has to be paid to the individual students

Does a student's emotional state influence study success?

- Definitely, e.g. being home sick, feeling safe, inclusive etc.
- If students don't feel safe, it is reasonable to drop out
- Studies about the human brain prove that (especially for boys) the front cortex is not very developed at the age of 18, only after 25
- Dutch system asks a lot of independence -> sometimes too much

Is there a relation between motivation and study success?

- Yes, definitely
- Intrinsic and extrinsic motivation
- Intrinsic motivation leads to higher motivation than extrinsic
- Teachers say that students' motivation is the core problem but this constitutes a limited perception of it
- Change needed in this area

Appendix 8: Interview with Pieter Gremmen

The interview with Mr. Pieter Gremmen took place on Tuesday, April 8, 2014. Mr. Gremmen is project manager at The Hague University's IT department. He is responsible for two major projects which were assigned to him by THUAS' management. During the interview, the IT projects have been discussed, as much as THUAS' information systems in general.

According to Mr. Gremmen there is no such thing as *the* information system of The Hague University. He considers each component such as blackboard as an own information system, and explains that THUAS makes use of a total of 200 information systems. For the interviewee, an effective information system has one clear characteristic, namely that **data always has one owner**, and can found at only one place accordingly. This requires clear responsibilities and prevents that data co-exists at different places, while being conflicting or outdated – being managed by different people. Throughout the last 30 years he has noticed that this aim is increasingly being pursued by organizations – especially within the last 10 years. As a result, information systems are becoming **increasingly centralized**. As

a positive example, he mentioned "DigiD", an initiative by the Dutch government which has managed to synchronize the information of all citizens living in The Netherlands. By taking a simplified and centralized approach, various data such as tax numbers, social security numbers and many more, have been merged into one digital profile. According to Mr. Gremmen, **THUAS is much slower** with this approach. On the contrary, private organizations such as banks and insurance companies are doing very well and manage to maintain high quality centralized information systems – mainly internal. When it comes to linking them to external information, private organizations face problems, however. For instance, they depend on the correct and timely input of their customers.

When asking about THUAS' information system(s), Mr. Gremmen identified several **problems**:

- Technical problems, such as the IT infrastructure (e.g. Wifi),
- Insufficient connectivity between the systems, resulting in a fragmented information system which is difficult to maintain,

- Low functionality, e.g restricted opportunities for students and teachers to work in groups,
- Teachers use the information system(s) differently in each faculty.

Mr. Gremmen added that THUAS' management is aware of these problems. In particular, the board of directors criticizes outdated software and the way software is being used. By means of the ongoing IT projects they want to achieve that at least 75% of all users are satisfied with the university's digital environment. Moreover, they wish to position THUAS as a university with a top digital learning and working environment whereas THUAS is only being ranked average at the moment. The concerned IT projects are being supervised by Mr. Gremmen. One of them focuses on making the facilities better (e.g. Studentnet, video lectures, sharing documents). The second project aims at improving the way facilities are being used. According to the interviewee, the technical part of the project is easier than changing the culture within the organization. At the end of April he will enter this project which will run for 1.5 years. He explained that the **major challenge** will be to get all THUAS' teachers to use the information system(s) in the right way. This

will be difficult due to the fact that he has to deal with about 1.600 teachers who will have to move into the same directions, and make arrangements accordingly. To figure out to approach this task, Mr. Gremmen is currently organizing a "Think Tank", consisting of employees and students from different academies at THUAS. He expects the participants to generate ideas on how to change the organization, taking a so-called "bottom-up approach". He further hopes to gain ambassadors who will provide their colleagues with the necessary motivation to change. In addition, the teachers will need incentives so as to change their behavior. At the end, the project seeks to achieve that all teachers truly understand the digital environment, and further **innovate their way of teaching.** According to Mr. Gremmen, this will positively impact the students' study experience. In the interviewee's opinion, the reorganization at THUAS might help drive the project forward, as staff of different academies will meet who has used the information system(s) differently in previous times. Nevertheless, he believes that changing the teacher's habits will be a time-consuming process. He explained that the majority of teachers is used to approach tasks in their own ways, thus, being scared or skeptical of change. As a result, many teachers are not motivated intrinsically what makes it more difficult to change their behavior.

Skype Interview

On June 6th a second interview has been conducted via Skype, seeking to clarify to what extent THUAS' student information was user-centered. According to Mr. Gremmen it was important to differentiate between the way information *systems* were set up, and the way they were *used*.

Information systems: In Mr. Gremmen's opinion THUAS' information systems were not always user-centered in the past but become increasingly user-centered due to various projects. He explained that the way they were set up was always a compromise between what users want and what the university wants. Limitations to user-centricity would be money for instance, and the university had decided to use external standard systems instead of building their own one. At the same time, the university tries to include different parties into the design process (workshops), in order to make the result as user-centric as possible. This is a difference when comparing it to the past, when experts designed information systems independently.

Mr. Gremmen believes that the student portal is a good example of a student-centered information platform. Blackboard, however, was rather course-centered and doesn't have the student as a basis of design.

Usage: Mr. Gremmen further emphasized the fact that there were no rules on how to use the university's information systems (some *academies* do!). This would justify the claim that the end-service with regard to information would not be user-centered. He recognized the students' claims about poor information quality and confirmed that teachers would not always communicate information in an 'optimal' way. In fact, it would strongly depend on their personal preferences and the preferences of their course or study program.

Appendix 9: Student interview #1

On Wednesday, April 16, 2014 a student from European Studies (ES3) has been interviewed about his study experience at THUAS. Taking the customer journey map as a starting point, he identified critical touch points and analyzed them accordingly. The full video can be retrieved from: http://youtu.be/a4OEtAH69 I

Goal:

The student's goal was similar to the previous focus group (see <u>Annex 2</u>). However, he made his personal goal more specific in terms of time and grades: Completing the bachelor degree within 3 years, with good grades.

Actions:

The actions the student mentioned to reach his goal, were very much in line with what the previous focus group had mentioned.

- Pre-study phase: Choose study, apply at HHS, accommodation, introduction week + language tests.
- During-study phase: Follow courses, take exams, go on exchange.

Touch points:

Positive (pre-studies):

- Website not most logical but okay
- Smooth process to apply for studies through Studielink, support from international office)
- Introduction week as nice experience, although it was not very relevant to studies

Negative (pre-studies):

- DUWO has been avoided since it is known to provide 'catastrophic' service
- Levels of language courses unclear (confusion about language tests)
- No overview before commencing studies but through experience

Positive (during-studies):

- Registration clear, although some courses do not show up in OSIRIS overview
- Information sessions about exchange opportunities in combination with website and booklet

Negative (during-studies):

- "In the dark"-feeling when starting studies
- Module books do not serve as guidelines, no clear structure
- Vague information in module books
- Teachers use module books differently
- Some module books contain much information, but do not clearly explain deliverables
- Teachers communicate conflicting expectations, interpret success criteria differently
- No sufficient feedback from teachers
- Confusion about taking resits to improve grade

Some teachers express that they do not want to be disturbed by students (e.g. emails)

The interviewee did not seem to have a major problem with the way he was being informed. He gave the impression to always be able to find the information he needs for his studies somehow. However, he did mention that sometimes information was not easy to retrieve and that his fellow student were panicking in those situations. He himself, appeared to be very relaxed with regard to situations in which information was ambiguous, missing or delayed ("I don't think I am a person that stresses a lot but I can understand that it's a very stressful situation."). This attitude can be further recognized in statements such as "I'm not really sure what I have to hand in but I know the information will be there.". The interviewee added that he was relaxed about receiving information because he "know(s) that this is the way it works here at the university. (...) You don't get the information when you want it but when they want to give it.". When linking it back to study success, he concluded: "If you have the information you have ease of mind and can focus on your studies. If you don't have information and it's difficult to

find it, it's a lot more stressful, it costs a lot of time and efforts and you cannot plan activities - it might cause people to fail or just demotivate them."

Appendix 10: Student interview #2

On Wednesday, April 16, 2014 a student from European Studies (ES4e) has been interviewed about her study experience at THUAS, taking the customer journey map as a starting point one more time. The full video can be retrieved from: https://www.youtube.com/watch?v=vugOF1ROCUc

Goal:

The student explained that her personal goal was to become a better intercultural communicator.

Actions:

- Pre-study phase: Visit open days, introduction week HHS
- During-study phase: Follow courses, study abroad

Touch points:

Positive (pre-studies):

- HHS website is very good and clear
- HHS "Student for a day": Take courses, presentations from teachers, talk to current students as positive experience
- Games and parties during introduction week

Negative (pre-studies):

Introduction lectures were 'boring'

Positive (during-studies):

- Information about homework during class and on Blackboard
- Blackboard: Enroll for courses, find manuals
- Manuals as a good course overview
- Country sessions were informative about exchange
- Meeting with country supervisor as most useful

Negative (during-studies):

- Educational career supervision was not helpful, boring, nobody paid attention, purpose unclear
- Meetings with career supervisors were not necessary
- Study abroad website was not very specific
- Exchange information session was not useful because no extra information
- Lots of paper work for exchange university

The student had a very specific goal and expressed an attitude of knowing what she wants (min. 9:05 "I think I knew it right away, because I like travelling, I like foreign languages (...)"). Moreover, she appeared as very relaxed and spontaneous, not paying much attention to information (min. 11:03 "They gave good information but during my first year it was just taking it week by week."). On top of that, she gave the impression of being okay with not having control over everything (min. 17:40 + 18:16 "When I finally made my choice, it was more out of the blue (...). I didn't have any problems, so for me it was alright.").

Appendix 11: Macro Trends

Yale

In January 2014, The New York Times and Washington Post reported about two Yale students who had built a better, more user-friendly version of the university's online course catalog (Kaminer, 2014). The new application allowed students to plan out their schedules, while comparing class evaluations and teacher ratings (Peterson A., 2014), thus constituting a hybrid of formal student information and informal social media. The information necessary to run the application was already available to students through internal systems, but the programmers created an interface which managed to compile everything in one place. Thousands of Yale students used the application and appeared to prefer it over similar sites which were run by the university. As students found it rather hard to attain information about all courses offered and compare them to a sufficient degree, they appreciated the centralized database which allowed immediate overview about courses, and insight into evaluations to make informed decisions about course selections. As an immediate reaction, Yale decided to block the web site, supposedly scared of its consequences (Peterson A.,

2014). After another student developed an 'unblockable' replacement of the application (Haufler, 2014), Yale backed down and explained in an open letter that the university would have to review both their internal policies and practices (Kaminer, 2014)

Appendix 12: In-depth research - Plan of Action

(1) Prepare information diary:

- Design template
- Develop video instructions
- Create Facebook group to distribute materials
- Prepare promotion material

(2) Gain participants:

- Send out email invitations
- Make Facebook posts in ES and ICM groups
- In-class presentations

(3) Prepare focus group + interviews:

- Develop concept and leading questions
- Create Facebook event
- Book room at THUAS

(4) Carry out focus group:

- Prepare hand-outs

- Collect information diaries
- Give introduction + warm-up game
- Moderate the discussion

(5) Analyze findings (information diary + focus group):

- Map all findings and cluster them
- Compare findings to established indicators
- Group findings and identify similarities and differences
- Develop personas

(6) Carry out interviews:

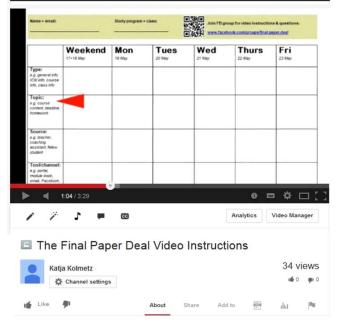
- Select eligible interviewees
- Find suitable appointments
- Challenge persona + lead conversation with steering questions

(7) Analyze findings (interviews):

- Map all findings and cluster them
- Compare findings to established personas
- Enrich personas with newly gained insights

Appendix 13: Template of Information Diary Video instructions on how to use it: http://youtu.be/XA6Z4PypGT0

Topic: Student Information



THUAS INFORMATION DIARY

Name + email:

Study program + class:

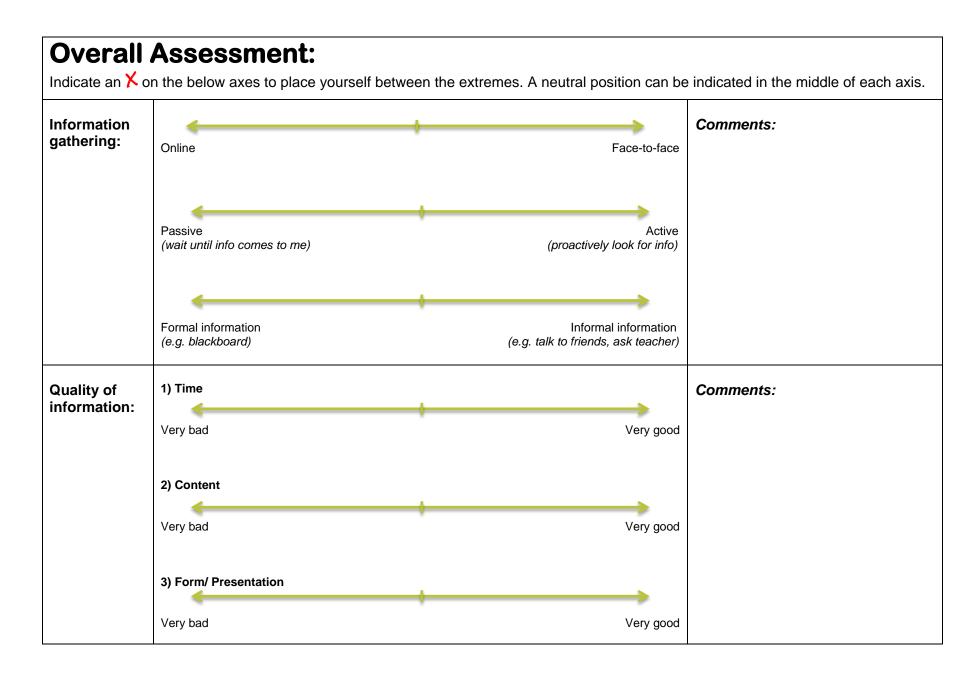


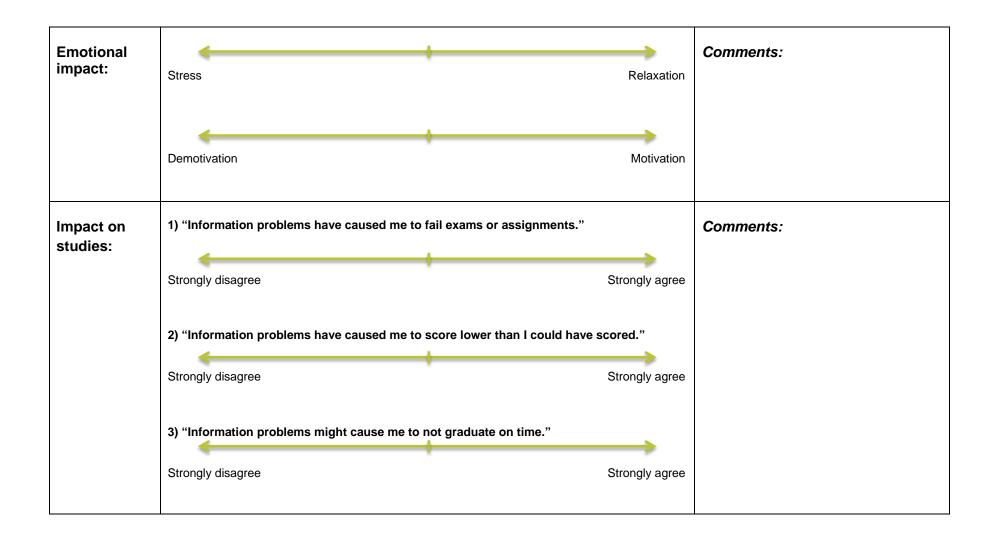
Join FB group for video instructions & questions:

www.facebook.com/groups/final.paper.deal

	Weekend 17+18 May	Mon 19 May	Tues 20 May	Wed 21 May	Thurs 22 May	Fri 23 May
Type: e.g. general info, ICM info, course info, class info						
Topic: e.g. course content, deadline, homework						
Source: e.g. teacher, coaching assistant, fellow student						
Tool/channel: e.g. portal, module book, email, Facebook, lecture						
Time evaluation: Info available						

			1
when needed? As often as needed? Up-to-date?			
Content evaluation: Info accurate? Relevant? Complete? Concise and compact?			
Form evaluation: Easy to locate? Level of detail? Presentation appropriate? Correct medium/ channel?			
Emotional impact: How did the info make you feel? E.g. stressed/ relaxed/ motivated/ demotivated etc.			
Impact on studies: How important was the info with regard to your studies? e.g. necessary to pass exam/ course etc.			





Appendix 14: Summary of focus group

Seven students participated in the focus group which took place on Friday, May 23, 2014. Four of them were ICM students, while three were from European Studies. All attending students were 1^{st} year students.

By means of an active exercise, the attending students were asked to place themselves at a spot of their choice, whereas one side of the room symbolized the opposite of the other side. For the first exercise, one side represented a very high ration of information quality at THUAS, while the other side stood for a very low rating. Most students positioned themselves in the positive half, whereas two students were more skeptical. It was striking that both of them were students from European studies. They complained about the timing of information in particular, referring to insufficient reminders about exam registrations and other deadlines. The other students joined the discussion and confirmed that they had similar problems. However, this did not appear their overall perception of information quality. When asked about the information content, the students expressed that they were satisfied and received mainly accurate

students expressed criticism. In particular they found it difficult to find information, complaining about the big number of channels being used. They explained that is was difficult to know where to locate what information, as teachers used it differently. Also, the study announcements would only show up very hidden and were sometimes directed to other groups or studies. Especially at the beginning of their studies the students had difficulties to find information, but they slowly got used to it. With regard to the way information was presented, however, one of the students mentioned that it would be nice to have everything at one spot, instead of having to search through different tools and channels. This was one of the students who had rated information quality lower than average.

information. With regard to the form dimension, however, the

As a next step, the students were asked to position themselves between two extremes which were related to emotional impact the information had on them. Most students positioned themselves in a neutral place, whereas one student (who had also rated information quality low) placed herself in the half of a negative emotional impact. Subsequently, she spoke up and explained that she felt very stressed about the way she was informed about her studies. Again, she referred to timing issues which forced her to make ad-hoc decisions. When asked about the impact which information had on their studies, students did not move places but engaged into a discussion immediately. They explained that information issues did not directly impact their studies and found it rather difficult to determine a correlation. However, they did share the opinion that a certain standard of information quality was a vital prerequisite in order to successfully approach their studies.

Appendix 15: In-depth interview #1

The first in-depth interview took place on May 23, 2014. He is a 1st year student from European Studies. He decided to leave the university after year 1, in order to study International Law at a research university instead. Nevertheless, he explained that his decision had nothing to do with the way he was informed by the university. Being confronted with both preliminary personas (one of them being stressed due to poor information quality and the other one not feeling a personal impact), he could very much identify with the latter.

He mentioned that there were some confusions with regard to information from time to time (e.g. teachers changing deadlines without satisfactory notice), but this would happen in each bigger organization. As a result, he considers it as acceptable and explains that it had no further impact on his studies or emotional state. Moreover, he mentioned that he enjoyed the freedom of not being 'pampered' too much. According to him, all necessary information could be found on blackboard and in the module books. If he had to search for specific information or talk to friends about it, this was no problem to him but he rather liked it to solve things by himself. Besides, he expressed clearly that he does not see a relation between THUAS information and study success. In his case, he would blame nobody but himself for his individual study success, mentioning that he does not attend all classes, what causes him to miss out on information sometimes. He stated that this was a mistake, but he would compensate it by asking his friends for the information necessary. All in all, he said he had a 'neutral' position towards the topic, being rather satisfied with the way he was informed as a student.

However, he did give examples of miscommunications in his study program. When a teacher failed to continue her course, the students were not informed properly on how to proceed. This caused multiple students to take the exam one semester later, leading to study delay for some of them. However, he considers this to be an exception and he highlighted the fact that is has not happened to himself personally. The only thing he criticized was that some blackboard information was in Dutch, so he could not understand it.

Appendix 16: In-depth interview #2

The second in-depth interview took place on May 30, 2014. It was a face-to-face interview with a student of International Communication Management, taking approximately 30 minutes. The student was confronted with both preliminary personas, and spontaneously expressed that she could very much identify with persona B who suffered from information overload and unclear information.

According to the student, she has not managed to understand Blackboard until today, and relied heavily on informal communication instead. She further expressed that this would not be her natural behavior, since she was normally very assiduous and would rely on formal information only. She described herself as a person who likes to have things under control. As a result, she had been disappointed by formal **information** many times, not being able to find the information needed, and therefore feeling exposed to a system that does not work well. She pointed out that she had the feeling it was necessary to look into every single blackboard folder in order to find what she was looking for, which was simply too much work. As a result, she developed her own strategy of attaining information, which included a strong social network in which she exchanges information with her friends, either face-to-face, through Facebook, or WhatsApp.

When thinking back, however, she remembered that the beginning of her studies was characterized by **uncertainty and stress**. She had a lot of problems with the reception of information, and it made her **doubt about both her personal capabilities and her studies**. Whenever information problems

occurred, the student would panic and mull over where to find it. This could cost her **1-2 hours** and especially before deadlines, make her **reach limits** and significantly suffer under the stress caused by missing or unclear information. She **did not always dare to contact her teachers** immediately, but rather doubted about herself because she was not able to find it. Today, she tries to avoid this stress by simply talking to her friends instead. Furthermore, her network includes several teachers by now, who she can contact in case of any questions.

She further explains that information problems have not impacted her personal study success because she was able to compensate missing and unclear information by means of her social network.

Appendix 17: In-depth interview #3

The third in-depth interview took place on May 30, 2014. Just like the others, it was a face-to-face interview, taking approximately 30 minutes. The interviewee was a student from International Communication Management, being confronted with the two preliminary personas. She explained that she would see herself somewhere in the middle, serving as a starting point of the interview.

The student described herself as a person who was rather flexible with regard to information. She explained that ICM was not her first course of studies, but that she had some experience with work and study already. As a result, she would not panic quickly when things were unclear, but rather wait and see what happens. She further explained that she had a general trust into the system, which could be sometimes naïve but usually paid off. In her opinion, the university and especially the teachers want students to complete their studies successfully, and would therefore provide them with all information necessary. She described herself as somebody who was **not easy** to discomfit, but would approach even deadlines in a rather relaxed manner. She does not have the ambition to do everything perfectly, but just tries her best according to the information provided.

With regard to specific examples in which information quality was either high or low, the student explained that she does not take student email seriously anymore. There were far too many emails which she received accidentally, some of them in Dutch or aimed at other target groups. As a result, she would **trust her friends more than the formal information provided**. Generally, she would not search for information actively, but rather **takes it as it comes**. In her opinion, this strategy has always worked well for her, enabling her to gain all necessary credits. However, she gave the example of her former roommate who was also an ICM student. According to her, the roommate was also rather passive with regard to information, but had substantial problems because of this. He **missed out on essential information** including exam registration, deadlines and re-sit regulations, which caused not only emotional stress but also study delay.

Contrary to this case, the interviewee mentioned that there were students who were always well-informed, and further share their information openly with others. They wrote emails to teachers when things were unclear, subsequently uploading them on Facebook to share the information with others. According to the interviewee, these students would **act as opinion-leaders** who had a good overview of what was going on, paving the way for their less active fellow students. She explains that she benefits from their active participation on Facebook, where information was exchange and discussed. Although she does not take active part in it, she values it for being up-to-date and reliable.

Appendix 18: In-depth interview #4

The last in-depth interview has been conducted on May 31, 2014, interviewing a 2nd year student of ES4e. The interview took about 30 minutes. Confronted with the preliminary personas, the interviewee identified rather with the one which was dissatisfied and stressed with the way he was informed.

The student expressed that he found the way he was informed by the university as very **confusing**. The different channels (e.g. blackboard folders) were used in an **incorrect** manner, what made it **difficult to locate** information immediately. He provided examples of information about a specific term being located in the folder of a different term, without announcing this change. Due to the fact that information could usually not be found in the expected location, the student **did not feel well** informed in general. Moreover, he criticized that the expectations teachers had were not communicated clearly, but usually he would only become aware of them retrospectively. As a result, the mentioned information problems would clearly affect his study success. He has already failed exams because it was unclear what to study for it, or missed deadlines because he was unaware of them. Consequently, he missed out on credits which he would have received if information was better.

He likes to **make an own overview** of all exams, assignments, etc., but in his opinion it is sometimes difficult to find every detail. When things are unclear, he usually emails the teachers who do not always answer them, causing him **stress and frustration**. As a next step he contacts his friends on Facebook, who sometimes do not know the answer either, leading to the next stressful situation. After these two steps he starts looking for the information himself, usually on Blackboard. He usually **tries to avoid Blackboard** because it costs him too much time, and further stressful situations. What works out the best for him is meeting teachers at university and asking them face-to-face. This enables an **exchange** and makes it easier to clarify the problems given. Another helpful tool mentioned, was the Facebook group of his study, in which some people were actively discussing and willing to help their fellows.

The student described himself as somebody who **needs** structure and clear instructions, so he can overview what is expected from him. Once he had this overview, he would be motivated to approach the respective tasks immediately. In his case, however, **demotivation** would prevail. He explained that it was still relatively positive when he was experiencing 'stress', because it showed that he still cared and was motivated to complete the tasks. Once too many stressful situations had accumulated, the university **lost its sense of professionalism** in his eyes, what led to demotivation from his side. At the same time, he became **more passive in his search for information**. He feels that teachers made it difficult to find the information needed, and he is becoming increasingly **resistant to making the effort** and being stressed because of that.

Appendix 19: Approach to Analysis

A total of ten information diaries have been filled in by students from ICM and ES year 1, allowing to arrive at first findings of the in-depth research phase. The diversified content of the information diaries was analyzed by means of categorization. All findings were grouped which enabled the researcher to further compare and analyze them. Subsequently, the focus group in which 7 students from ICM and ES year 1 participated, allowed to challenge the previously established groups and differentiate them. By means of a summary it was possible to compress the results and boil them down to arrive at key findings. As a last step, four in-depth interviews were conducted. The range of interviews with students from year 1, 2, and 3 led to deep insights into the different categories, bringing them to live in terms of personas. The findings of the interviews were summarized and compared to the previously established categories. Throughout this phase it was found that two personas were not enough to adequately represent all student information types at THUAS. Consequently, four different types were established, geared to the parameters of 'flexibility' and

'activeness'. Eventually, all findings were *structured* so as to present them in a narrative manner throughout this chapter.

Appendix 20: Personas

The up-to-date opinion leader

The 'up-to-date-opinion leader' is highly flexible and always involved. When things are unclear, he/she will simply use the social network to clarify all necessary information. He/she has an open personality and is not afraid to contact teachers and fellow students. As a result he/she is always up-to-date and openly shares information with others, thus, paving the way for less active fellow-students.

The relaxed independent

Similarly to the 'up-to-date opinion leader', the 'relaxed independent' is rather flexible and does not worry too much about information. He/she is not very active in exchanging information, but simply waits until information is provided. Due to the fact that the 'relaxed independent' does not tend to panic, he/she is rather relaxed with a general trust that things will work out. He/she is prepared to figure things out by herself, and decides independently which information is necessary or not.

The stress circulator

Contrary to the 'relaxed independent', the 'stress circulator' is always on the watch for any information possible. He/she is afraid to miss out on something, and hates it when things are not under control. As a result, he/she can be described as rather inflexible, easily feeling anxious and stressed when information is delayed or missing. Thanks to his/her social network, however, the 'stress circulator' is able to compensate on the information missing, helping to calm down and concentrate on the studies. At the same time he/she spreads constant sense of urgency amongst teachers and fellow students.

The lone laggard

Just like the 'stress circulator', the 'lone laggard' needs clear structures to approach his/her studies successfully. At the same time, he/she is rather passive and uninvolved when it comes to the exchange of information. Waiting until clear instructions come to him/her, the 'lone laggard' happens to miss out on important information. Depending on high information quality being provided by the organization, he/she tends to become not only stressed but also demotivated with regard to the studies.

Appendix 21: Communication Strategy

1. Strategic Ideas

Approach:

The approach taken is an internal communications campaign to enable a **dialog** between information users and information providers. It is characterized by a combination of **top-down** and **bottom up** communication. Specifically, the campaign will be kicked off by management, as recommended by Vos with regard to times of re-organization (Vos, Otte, & Linders, 2003, p. 76). As a next step, the campaign aims at initiating bottom-up communication to enable inspiring ideas from both students and teachers who constitute the work-floor in this case.

The sender of communication will be THUAS, as represented by its management. Taking a **pro-active** approach to communication, they will reinforce the importance of actively seeking to innovate – as opposed to accepting existing patterns and waiting until they become outdated or detrimental. Moreover, it will be instrumental to take an **open**, inclusive and transparent approach so as to promote a 'sharing mentality' with regard to practice and experience. This will need a combination of **rational** and **emotional** communication. A rational approach will be taken at the beginning of the campaign, seeking to explain where things go wrong and how this can be changed in a simple collaborative manner. Subsequently, an emotional approach will help to reinforce the idea of collaboration, pulling together in order to achieve a common goal.

Inspired by the Service Design principle of 'user-centricity', the tone-of-voice will be determined by the **language of the user**, namely THUAS' student population. Thus, it will be key to not overcomplicate things but send out messages which are straightforward and to the point.

Positioning:

It was decided to carry out the internal communications campaign under the umbrella of **corporate communication**. According to Marc Wright the advantages would be to be closer to the 'seat of power', enjoying the status of 'having the ear of the boss', and finding it easier to align internal with external communication. Disadvantages could be to be distrusted or undervalued by the middle management or becoming remote and irrelevant with regard to the work-floor (Wright, 2009, pp. 26-27). Consequently, the author suggests to not regard the top-management as the center of the organization, but the customer or user of its service – an idea which is very much in line with Service Design Thinking. According to the author, it will take about 6 months to truly understand all different stakeholders and look at the organization from different perspectives (Wright, 2009, p. 27). Against this background, it will be an advantage to work hand-in-hand with the top management and kick off the project with their authority. At the same time, it will be crucial to introduce a multidisciplinary steering committee of opinion leaders, so as to activate and involve all parts of the organization.

The internal communications campaign will be positioned as a corporate project which lives on the input of people from all organizational layers. Consequently, the first step of the project will be to **inform** people and explain *why* the project is carried out. As a second step, it will be vital to empower people and foster engagement and eventually **transformation**.

Central theme:

As a central theme "2-way information" has been chosen. Whereas 'two-way communication' is a common term with a positive connotation, information usually implies a onedirectional process. In the course of the research conducted it has been found, however, that information exchange is vitally important. It enables people to understand each other's information needs, so they can effectively communicate with each other, making sure the receiver of information will find and understand them. This further implies a reinforcement of the fact that people's information needs vary, and different 'information types' exist. By understanding these differences, people will be able to communicate in a more efficient yet effective manner. As a last step, this will help to make sure all students receive the information they need to successfully approach their studies. By providing all students with the same prerequisites, a contribution to increased study success can be made.

The metaphor of "2-way information" implies both, informative and transformational positioning. With regard to the educational or informative part, it highlights the **importance of a dialog** and information exchange. At the same time it **calls for action**, promoting collaboration and eventually change. In addition, the tagline "Share. Learn. Innovate. @THUAS" has been added to reinforce the message and incorporate the vision of innovation and change. The central theme of "2-way information" will frame all aspects of the internal communication campaign, serving as a starting point for all messages and increase their synergy.

Message for each target:

Subsequently, tailored messages for all target groups have been developed. They all comply with the central theme of "2-way information" and incorporate the proposition of positive change: Making things easier and getting closer.

Teachers – "By understanding students better we can unlock their full academic potential!"

It is in the teacher's best interest that their students are well prepared for exams, know what they need to do to pass an assignment, and eventually graduate from their study program within the designated period of time. Once teachers understand that they can contribute to this by means of simple changes in the way they communicate information, it will be an easy next step to implement them and initiate a new movement at THUAS. This movement will benefit not only the students but also teachers who will spend less time on individual consultations via email or face-to-face.

Students - "Things can change with your contribution!"

For students, the "2-way information" project will constitute a unique chance of having a direct impact on their every-day study experience, and innovate THUAS' education. Their opinion will be valued and they will get in touch with teachers on eyelevel, collaborating to achieve a common goal. Their contribution will be appreciated as contemporary input, enabling the university to think forward and design information according to the needs of Generation Y, respecting different information types and seeking to provide them with the best prerequisites to successfully complete their studies.

2. Tactical Plan

It was decided to divide the internal communications campaign into three different phases:

Phase 1 (September 2014 to October 2014) is about raising awareness. Introduction emails will be sent to teachers and students. Teachers will receive an animated video and students a personality test to identify their information type. This aims to introduce the topic and win over members for a steering committee. Phase 2 (October 2014 to March 2015) is about changing people's attitude by **involving** them. A virtual "idea box" will be introduced in which problems and ideas for student information can be shared. Workshops will be offered to analyze the input, allowing teachers to slip into the shoes of their students. Phase 3 (March 2015 to June 2015) is about taking action. In the newsfeed and academy meetings best practices will be shared to encourage each other. Students provide feedback, reassuring teachers of their efforts. Finally, a contest will honor the teacher who has innovated student information significantly.

Communication tools:

A communication mix will be applied, making use of various online and offline tools and channels. The introduction period will be kicked off by means of an interactive email. For teachers, it will include an animated video, illustrating the current situation of student information an letting them slip into the shoes of their students for 1.5 minutes. Subsequently, the underlying idea of different information types will be introduced, followed by a call to action. Teachers as well as students will be welcome to join the steering committee, to actively take part in the campaign and take over the role of an ambassador. The trigger for students will be an interactive personality test which will allow them to figure out which information type they are – stimulating students to think about the topic and raising interest in evoking a change.

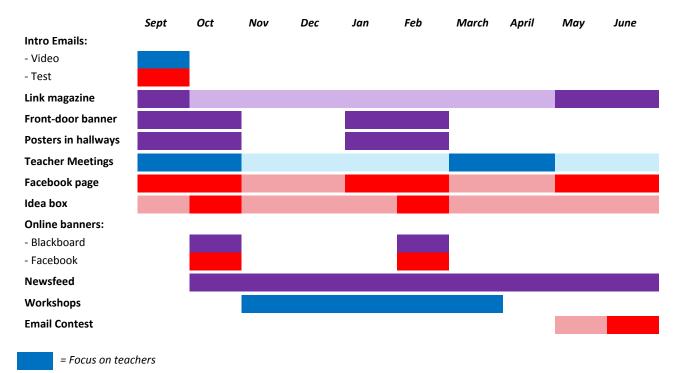
As a next step, the digital idea box will be introduced in which students (and teachers) can contribute their ideas or problems with regard to information. This tool will pop up on the student portal – not constantly but as a call for action in two main phases. The idea box will be advertised at as many information touch points as possible, including Blackboard, Facebook pages, and (offline) notice boards in the academies. This will be followed by multidisciplinary workshops being offered to teachers. Moreover, a small group of students is encouraged to participate, too. The 1 hour session will be facilitated by the project manager of the internal communications campaign, seeking to bring together a multidisciplinary team to exchange experiences and develop concrete plans for action.

In the last phase, some teachers will have implemented minor changes already. In academy meetings, they will have the chance to exchange best practices with their colleagues, seeking to encourage and inspire each other. Moreover the newsfeed will help to spread success stories easily, seeking to stimulate the community. Students are encouraged to share feedback, and positive change will be celebrated. The highlight of this phase will be a contest in which the teacher who has innovated student information the most successfully, will be honored with a prize.

The following overviews will further illustrate the key communication tools mentioned, as well as support materials.

Time	Target group	Message	Communication tools
<u>Phase 1</u> September 2014 – October 2014	Teachers	 Different information types exist Student information problematic for some students Become part of steering committee 	 Intro-email + video Feature on Link magazine Academy meetings Posters on academy noticeboards 'Idea box' teaser on portal
	Students	 Different information types exist University wants to improve student information Become part of steering committee 	 Intro-email + 'information type' test Feature on Link magazine Facebook page Posters on academy noticeboards 'Idea box' teaser on portal
<u>Phase 2</u> October 2014 – March 2015)	Teachers	 Introduction of steering committee + 'idea box' Review student's input Join workshops 	 Newsfeed "Idea box" on portal Academy meetings Banner on Blackboard Workshops
	Students	 Introduction of steering committee + 'idea box' Share your information problems, concerns, and ideas 	 Newsfeed "Idea box" on portal Banner on Blackboard Banners on Facebook groups Workshops
<u>Phase 3</u> March 2015 – June 2015	Teachers	 Implement changes to optimize individual student information Share best practices with colleagues 	 Workshops Newsfeed Academy meetings Feature on Link magazine Contest: Teacher of the year – best student information
	Students	 Provide teachers with feedback/ recognize positive change 	 "Idea box" on portal Newsfeed Feature on Link magazine Contest: Teacher of the year – best student information

Timing



= Focus on students

= Focus on both

Responsibilities

The campaign will be navigated by a **project manager** who will work 20 hours per week, taking over all necessary organizational tasks (e.g. advertising materials, social media updates, organizing workshops, networking). In addition, the project manager will guide a **steering committee**, consisting of a multidisciplinary group of 10-15 persons. Motivated students and teachers from different academies will mingle so as to exchange ideas and drive the campaign forward. The committee will support the project implementation, while acting as *ambassadors*.

Durposo	Details	Amount	Source
Purpose			
Salary project manager	- 20 hours per week - period of 12 months	17.000 Euros	STAMOS website (maximum salaries of professions in higher education)
Video production	One-time payment	2000 Euros	FUNK-e/ Rocky animation
Others	4000 posters + 1 outdoor banner + stationary for workshops + buffer	1000 Euros	
TOTAL		20.000 Euros	

Budget

The needed budget is expected to be a total of 20.000 Euros, covering a project period of 12 months. 85% of the budget will be spent on the salary of a project manager. An alternative concept would be to allocate this role to existing staff that still has capacities.