

INVESTIGATING THE USE OF STATISTICAL SCHEMES IN A STUDY ADVISORY OFFICE SETTING:

Working Towards Implications for Further Development

IT in Organizations – A Practice Approach

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Abstract–This paper sets out to imply areas to be considered in order to improve the statistical scheme used in the Study and Career Advisory Office at the IT University of Copenhagen. Through theoretical perspectives from pragmatism, the consequences of classification systems in a study advisory office setting is discussed. Five key factors are identified and should be taken into consideration in the further development of the scheme.

Statistical schemes, study advising, classification, transformation processes, documentation

1. INTRODUCTION

The Study and Career Advisory Office at the IT University of Copenhagen is an offer for current and prospective students who need advising or coaching in study and career related issues. The Office consists of two full-time academic officers and eight student advisors who are also students at the IT University's study programmes. The Office receives all kinds of different enquiries from students; ranging from questions about rules and regulations or study and career opportunities to personal issues like sadness or depression.

Like other similar services for students (Studenterrådgivningen 2011), the Study and Career Advisory Office keeps statistics on the number and type of enquiries being processed. This is currently done with an online statistical-service that has been modified to best possibly fit the everyday practise in the Office.

As it will be described in this paper, study advising is in its nature a pragmatic discipline, as a consultation is formed on the basis of each enquiring individual. After a consultation, the enquiry is converted and registered in predefined categorisations used in the statistical scheme. This transformation from a holistic and individualized approach in the consultation to a statistical scheme is contradictory, and this paper sets out to investigate the theoretical foundations of the classifications used in the study advisory office setting and how these are dynamically maintained. Furthermore, areas for additional investigations will be identified and implications for further development of the statistical scheme will be proposed.

2. THEORETICAL AND METHODOLOGICAL FRAMING

The use of statistical schemes in a study advisory office setting will be approached from pragmatic theorists as it goes well with the study advising discipline, where consultations are appropriated and cannot be predetermined despite numerous theories and methodologies. The classifying categories used in the schemes will be discussed based on the work of Bowker and Star (1999). The notion of symbolic interactionism (Strauss 1978) and Strauss' (1993) article on a theory of actions will form the foundation of understanding the practise-related aspects of implementing statistical schemes in a study advisory office setting. The study will be contextualized through the work of Lauvås (2006) on advisory practise as well as the work of Peavy (2006) on constructivist advising.

Morgan (2006) introduces the idea of organisations as being build upon a predominant metaphor, and argues how this metaphor can be used to look on and understand organisational life. This limited sight, however, only allows seeing certain aspects, and does not account for the organisational complexity in its entirety. Still, Morgan (ibid) serves as a useful basis for understanding how the Study and Career Advisory Office is integrated within the larger organisation of the IT University. The metaphors of organisations as political systems will be considered as well as the notion of organizations as flux.

As no empirical data has been collected for this paper, it is important to stress how it only serves as indications of possible investigation areas. In order to ensure validity of the outcome of this paper and to examine possible solutions for anticipated problem areas, empirical investigations should be conducted. However, the discussion will be elucidated and formed on basis statistical data and minutes from internal meetings in the Study and Career Advisory Office. Also, as I am currently employed as a student advisor at the IT University, I will draw on observations I have done in my work in the Office. As these observations will be self-experienced they may not serve as valid argumentation, but should instead be considered as informed indications.

3. BACKGROUND

The following section will introduce the necessary assumptions on study advising used throughout this paper. Also, the latest developments of the actual statistical scheme will be presented and the current version will be thoroughly described.

3.1. Introducing study advising

As this paper encompasses the use of statistical schemes in the particular setting of a study advisory office it is relevant to establish somewhat understanding of the underlying assumptions in advisory theory. In the Danish University Act (Retsinformation.dk 2010a) it is stated how universities in Denmark are obliged to provide students with study advising. At the IT University this is enforced through the Study and Career Advisory Office.

Morgan (2006, chap.6) uses the political metaphor as a way of accepting order of direction as something created to avoid potentially conflicting interests. Although, he (ibid) excludes governmental interventions in the metaphor, it is relevant to take them into consideration in this particular context, as the IT University is a deployed under the Danish Ministry of Science Technology and Innovation.

The Study and Career Advisory Office does not constitute any laws or regulations, but are mere mediators of knowledge between students and the university. In this regard, the Office is engaged in the organisational politics, without any direct power to amend the regulations. When students enquire the Office, their interests may collide with the rules, ambitions or goals of the university. This makes the student advisor caught in a delicate place between conflicting interests. This contention must be balanced, but as the Study and Career Advisory Office has no authority in the rule processing, it allows for a more varied approach to the parties. Furthermore, the students' personal interests are also ensured through law (Retsinformation.dk 2010b).

Study advising is a discipline that helps and supports students comprehend issues related to their studies (Peavy 2006); e.g. educational planning, life, health, and family relationships. Although Lauvås (2006) focuses on vocational advising, he argues how all advising must spring from personal relations, and states how his book can also be used in a study advisory setting (ibid, p.37). However, he notes with study advising how

is has a strong focus on working with personal issues in combination with involvement of factual information (ibid, p. 38). Study advising draws on research-based theories and methods, and Peavy (2006, p.10) identifies universal factors across advisory methodology. These factors include the importance of a trustworthy atmosphere between advisor and person seeking advising. The goal is to reach some kind of clarification and realisation towards the specific problem or theme. Because of this it is essential to take a starting point in the enquiring individual. Furthermore, Lauvås (2006, p. 165) notes how the student advisor always must approach the consultation based on personal experiences and use the advisory theory and methodology as subjacent reflections. Therefore, the advisory consultations can be considered pragmatic, as they are always appropriated towards each individual consultation.

The Study and Career Advisory Office works both passively, but also pro-actively. Students are urged to come by the Office or send an e-mail. However, certain issues are general for a larger segment of students, which is why the Study and Career Advisory Office conducts several thematic events throughout the semester, e.g. thesis start-up seminars.

On a passing remark, it is accordant to mention how the term “advising” (Dictionary.com 2011a) will be used in this paper, and not the closely related “guidance” (Dictionary.com 2011b). Although almost similar, “guidance” includes more directing and leading properties. However, the difference is very distinct within the discussion among advisory professionals, and it was only few years ago the IT University changed to “advising” instead of “guidance”, which is still used in other Danish educational institutions (Study Guidance Office 2011).

3.2. Statistical scheme in Study and Career Advisory Office

The Study and Career Advisory Office keeps track of enquiries in a statistical scheme. This has been done for several years, but it has not been possible to recover any documents from the original implementation. Therefore, this study is limited to the three latest versions of scheme.

3.2.1. The purpose of keeping statistics

The statistical data serves three main interests: Internal purposes, documentation, and communicative possibilities (Study and Career Advisory Office at the IT University of Copenhagen 2011).

From the data, tendencies towards certain repetitions in the enquiries can be analysed. In the Office, this can be used to indicate *what* initiatives and thematic events are needed, and *when* they are needed, based on the students’ needs.

The data can also be used externally as documentation, to be shown to other departments on the university. This could include the study administration, the academic personnel or the management. Statistical data is an informative way of justifying and make visible work done in the Office (Bowker & Star 1999).

Communicative possibilities can also come from the data. The data can be used to communicate to students at the university on a comprehensible level. An example could be to make students realise how the student advisors are used by many of their co-students, and that one does not need to be depressed to be sanctioned to use the Office.

3.2.2. Developing a suitable and practical scheme

As noted, the three latest versions of the statistical scheme will be examined in this paper. The first version, of these three, was paper-based. The scheme included information on study programme and the type of enquiry (figure 1). The scheme would be filled for a week and then replaced by a blank, in order to keep a sense of time. However, enquiries were often not entered in the scheme; hence, making it unreliable. Because of this vague use, it was decided to develop an electronic scheme, to replace the paper-based in hope of getting more entries. This was decided and developed in the fall 2010 (Study and Career Advisory Office at the IT University of Copenhagen 2010). This new electronic scheme was put to use in the beginning of December 2010. It was no longer necessary to keep track of the week number, as the online service automatically provided date declarations. Instead, a “Channel”-category was introduced in order to document through which channels enquiries were processed (figure 2). In February it was decided to create a new version of the statistical scheme. This was primarily due to technological advantages that could be gained from a new online-service. Figures 3a and 3b show the newest and current version, which will be described in detail in the following section.

Potentielle stud.	Uge: 46	Merit og dispensation	Individuel specialisering	Kurser	Projekter og Speciale	Eksamen	Personlige forhold	Utilfredshed
	MTG							
	SDT							
	DDK							
	Ebuss							
	BSWU							
	BDMD							
	BGBI							
	Master							
	Diplom							
	Enkeltfag							
	Gæstestud.							

Andet: |

Henvendelser: ||| ||| ||| ||| ||| ||| |||

Figure 1 Version 1 – Paper-based version, including week number study programme and type of enquiry

Figure 2 Version 2 – First electronic version of the statistical scheme. This included study programme, type of enquiry, and channel

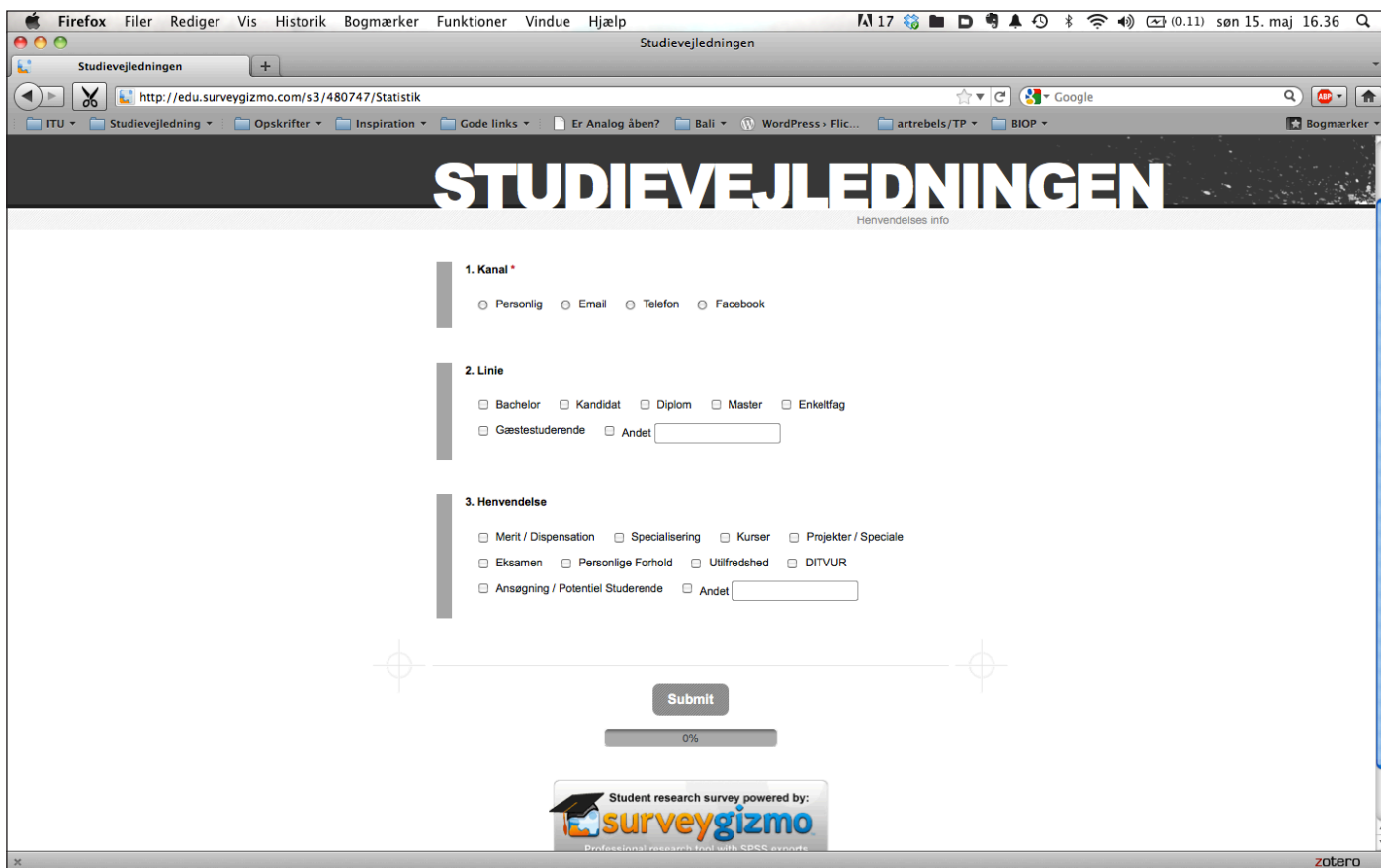


Figure 3 Version 3a – including: Channel, study level (see figure below), and type of enquiry

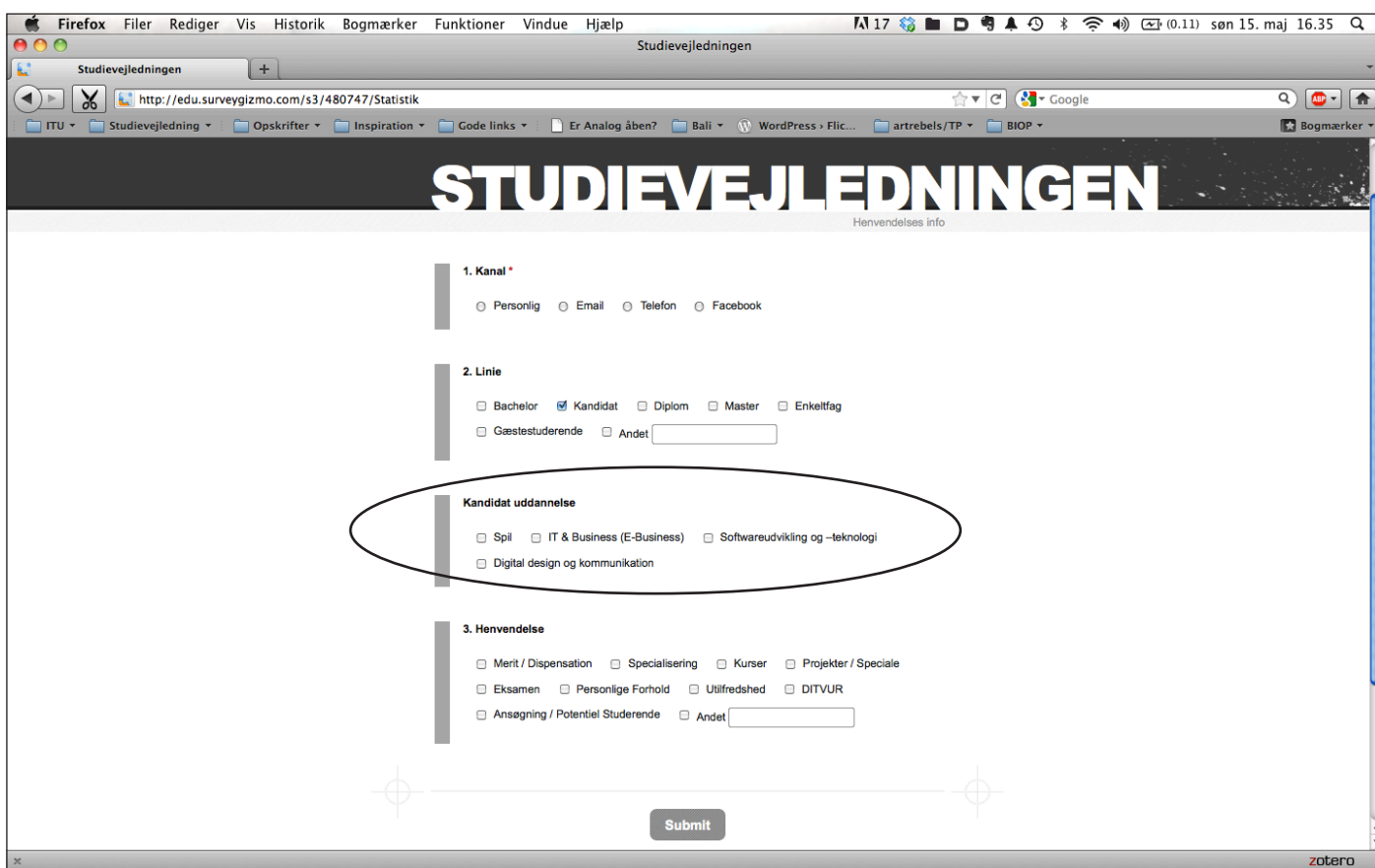


Figure 4 Version 3b – When a study level is chosen, the corresponding study programmes appear (see highlight). This has been done to make the scheme as visually clear as possible, with only the relevant fields for each enquiry

3.2.3. The currently operative version of the scheme

The current statistical scheme in the Study and Career Advisory Office is an online and survey-based scheme and has been used in this spring (2011). It includes the categories “Channel”, “Study Level”, “Study Programme”, and “Type of Enquiry”. The “Channel” category serves the purpose of getting data on what channels are most frequently used. It includes personal inquiries, e-mail, telephone, and Facebook. The “Study Level” is categorised in “Bachelor’s Degree”, “Master of Science”, “Diploma (part time studies)”, “Master (part time studies)”, “Guest Student”, and “others”. The categories “Bachelor’s degree”, “Master of Science”, “Diploma”, and “Master” will activate the “Study Programme” fields, corresponding the study programmes offered at each level. The last field, “Type of Enquiry”, includes the most common types of enquiries as well as an “Other” field.

In the following sections the configurations of the statistical scheme will be critically discussed.

4. DISCUSSION

Bowker and Star (1999, p.10) define classifications as “[...] a set of boxes (metaphorical or literal) into which things can be put to then do some kind of work-bureaucratic or knowledge production.” When enquiries in the Study and Career Advisory Office are being entered into the statistical scheme the person’s background and problems are transformed based on the possible classification categories in the scheme. This section discusses these categories in terms of relevance and usefulness in the study advisory settings.

Bowker and Star (ibid) advance a set of ideal properties for the classification: (1) The system has to be consistent and the principles used in the system must be comparable; (2) the categories must be mutually exclusive; and (3) the system must provide total coverage of possible contextual needs. However, they are aware that these properties will never be fully met in an actually implemented classification system (ibid, p. 11). Still, these properties can be useful to have in mind in this discussion. Bowker and Star (ibid, p. 231) also introduces three main areas for attention, when developing a classification scheme: (a) Comparability; (b) visibility; and (c) control. Comparability refers to the regularity in the used semantics. In the Study

and Career Advisory Office it is important that all student advisors agree upon the intention of the classifications. *Are the classifications used comparable to other departments within the IT University?* This is necessary if the statistical data is to be used to uncover the work done in the Office (ibid). This uncovering, or making visible, is an important aspect to consider if the statistical data is to be used as documentation. In terms of control, the statistical scheme has to offer categories that are well defined and comparable, but at the same time allows for flexibility, to allow for several transformation processes to exist (ibid, p. 232).

4.1. The development of the statistical scheme

The statistical scheme has been further developed within the last year and the changes that have been made, has naturally had concomitant improvements. This has been seen in the number of entered consultations. There is a possibility that there has been a general rise in the number of enquiries in the Office, but in the first version (paper-based), the number of entered consultations were between 120-200 pr. month, whereas the newest version includes 400-500 entries. This shows how the statistical scheme is more efficient and reliable. This can be caused by several factors, but one could be how the scheme has been digitalized, making the scheme fall into a natural practise in the office and computer-based environment.

It has been decided to develop the statistical scheme based on ad-hoc needs (Study and Career Advisory Office at the IT University of Copenhagen 2011). As Bowker and Star (1999) argue the categories in the scheme have to provide the user with comparable, mutually exclusive, yet flexible categories. In the further development of the scheme it must be considered if the current categories are sufficient, or if new and revised categories are needed. On an internal meeting in the Study and Career Advisory Office it emerged how people experience some troubles when filling out the scheme (Study and Career Advisory Office at the IT University of Copenhagen 2011). An example of this is how the “potential student” (figure 3a) was placed in a way that confused some of the users. Also, the level of information in a category was unsatisfactory to some; e.g. the “thesis” category was too broad and people would like more detailed possibilities. However, it is important to balance the level of information and the time required to enter data into the scheme.

In terms of categories, it is important how these can be reflected to other departments of the IT University, if the data is to be used as documentation. *Will the study administration or the management understand the classifications used and how does it fit in the general discourse on university systems?* Naturally, it is necessary to make the scheme reflect the actual work done in the Study and Career Advisory Office, but if the data is to be used for external purposes, the categories must be comparable for all parts (Bowker & Star 1999).

As the students who are being consulted in the Office are very varied and cannot be unified into a singular group of people, it is important that the statistical scheme is flexible and allows all problems and types of enquiries to be identified within the classifications used in the scheme. Strauss (1978) defines social groups as people joined together in cultural and social agreement. All sort of social groups are apparent in the Study and Career Advisory Office, and should be able to fit into the categories used in the scheme.

4.2. The usage and ongoing relationship with the scheme

The use of the statistical scheme is not the prime objective of the everyday work in the Office. The statistical scheme is a way of documenting the work, but it is not the work itself. Therefore, it has to be easy and fast to ensure that most enquiries will be reported.

Even though all enquiries were to be reported, it is of the utmost importance that all users agree on how the categories and classifications are to be understood, in order to achieve useful and valid data. The comparability of the categories must be sufficient for all to understand what each category covers (Bowker & Star 1999). If everyone uses the scheme in the same way, the basis for a fruitful documentation work will emerge.

It is not only among the student advisors a cohesive understanding of the categories must exist, but also each individual student advisor must understand the categories in the same way every time. However, it is difficult to achieve a classification system that on one hand, is always considered the same, and on the other, is flexible for interpretation (ibid, p. 244). In the statistical scheme there is a possibility of choosing “Personal Issues” in the “Type of Enquiry”-category. This is a problematic category as it is open for many interpretations; It can be understood differently among the student advisors, but each student advisor’s

interpretation of the category can also change as he or she has been engaged in consultations – *Is the “personal issue”-category the same after one has experienced someone cry or have be depressed?* Despite the need for flexible categories, this particular category seems too wide. Also, it may be an undefined or incomparable category, when used to communicate to other departments within the organisation that does not operate with the same classifications.

A key issue to discuss with the statistical scheme is how it relates to and potentially influences the actual consultations with students. *Will the classifications define how the student advisor approaches the consultations?* There is a risk, that the student advisors will (unconsciously) pre-categorize students, based on the classifications used within the work context. This is a danger, not only because of the statistical scheme, but also on the mere premise that a certain discourse rules within the Office. The statistical scheme has the potential of reinforcing this risk. Morgan (2006, p. 260) argues how small changes in a system have the potential of creating large effects to it and in organisation where perpetual appropriation and changes take place. A small change in the classifications used in scheme, may lead to consequences in the how the consultations are approached. Strauss (1993) lists a series of assumptions on actions, and a key argument is how external factors are constantly being re-created through interaction with the world. Therefore, it is important to make the classifications in statistical scheme clearly defined and protected against interpretations; however, the classifications need to be flexible in order to encompass all kind of students from all kinds social worlds (Strauss 1978). This duality is some of what will be discussed in the next section.

5. IMPLICATIONS FOR FURTHER DEVELOPMENT

It is (probably) impossible to create the perfect statistical scheme (Bowker & Star 1999). However, measures can be taken to ensure the best possible outcome. This section will define areas to be investigated further.

First and foremost, it is important that the classifications used in the scheme are reconsidered.

The following factors should be taken into account:

- What categories and classifications will be adequate to reflect the actual work done in the Study and Career Advisory Office?
- How do these categories relate to the common understanding among the employed student advisors?
- How can the categories be used to serve internal purposes; how will the data provide information of possible focus areas?
- If the statistical data is to be used externally as documentation, what other departments are relevant to take into account?
- And how are the categories transportable and comparable to these departments?

It seems fruitful to focus on how the student advisors, who are the users of the scheme, interpret each category, both to examine the consistency in interpretations, but also to let the problematic areas expand from a use-context discussion. Also, discussions could lead to possible new classifications. *Would it be relevant to keep statistics on the gender distribution of the enquiries? Are female students more in need of study advising than their male co-students? Or would it be insightful to know what year the student was enrolled, to be able to notice general frustrations within a year group?*

Another source to possible areas, is to look into what has been entered in the “Other”-fields in the statistical scheme? Are there any tendencies towards missing categories?

The current version of the scheme does not contain any classifications in regards to “Career”. Could categories with the “Career” subject reinforce a stronger focus towards career consultations? Would it be useful to keep track of the number of career enquiries? As earlier argued, small changes in the classifications may cause a change in the advisory practise (Morgan 2006 p. 260). If “Career” is stronger implemented in the statistical scheme, it may enhance the focus from the student advisors on the topic when they consult students.

From a use-context perspective, how is an easy-

accessibility kept, in order to ensure a high ratio of consultation reports, and still reach thorough insights? The current scheme allows categories to unfold in relation to the data that is entered into the scheme. *Could this effect be used to bring more detail to certain areas? Could a new section be unfolded if for instance the “Thesis”-category is chosen to get more detailed information about what type of thesis-enquiry is being conducted?*

These indications are non-exhaustive and many other issues could be brought into light. However, this is some possible touch points, and other can easily be located if the above-mentioned factors are taken into consideration.

6. CONCLUSION

In this paper, it has been discussed how difficult it is to create an unproblematic statistical scheme; especially in the context of study advising, which is a discipline that demands an open and pragmatic approach to every consultation. It is important to find the right balance between flexible categories, that allows for all kinds of students to fit into the categories, but also to keep well-defined categories, that are open for any interpretation.

Still, five key factors have been identified, and should be considered in the improvement of the current statistical scheme in the Study and Career Advisory Office. However, this paper does not serve as a to-do list that can be implemented in the scheme, but suggests areas that could be investigated further.

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