

# THE ROLE OF EVALUATION CONTRACTS IN THE PRACTICE OF E-HEALTH EVALUATION

Hanna Danielsson (PhD)

School of Computer Science, Physics and Mathematics and the eHealth Institute,  
Linnaeus University, 391 82, Kalmar.

[hanna.danielsson@lnu.se](mailto:hanna.danielsson@lnu.se)

## Abstract

*There has been a growing amount of e-health evaluation projects and a problem within those are that project requestors are not satisfied with evaluation results and the results have no impact on improving e-health. One reason why project requestors get dissatisfied is because of misunderstandings with the project leader about what to evaluate and how. The evaluation contract plays an important role in e-health evaluation. This role of the evaluation contract has been studied and analyzed with the use of Practice Theory within a local practice of performing e-health evaluation. The study has found that the evaluation contracts have two major roles: as an agreement between the requestor and the evaluator and as a directive for planning and performing evaluation projects. Those descriptive findings could be used in further research to suggest methodological support for negotiation and formulation of evaluation contracts.*

*Keywords: e-health evaluation, practice research, evaluation contract*

Accepted to the International Workshop on Practice Research in Helsinki, June 8, 2011.

# 1 Introduction

During the last decade healthcare organizations world wide have invested both effort and money in implementing Information Technology (IT) in support of their information processes. Stakeholders have had the urge to find out if those efforts and money spent was worth while, resulting in the domain of e-health evaluation<sup>1</sup> (see for example Anderson & Aydin eds, 2005; Brender, 2006a; Moehr, 2002; Keizer & Ammenwerth, 2008). e-Health evaluations have been performed by internal evaluators within the healthcare organizations, like IT personnel, administrators or even medical staff, as well as external evaluators from consultant companies, authorities or universities. Evaluation is performed with some purpose, to have some effect for the stakeholders. However, a known fact among evaluators is that there are a number of evaluation reports that are only placed into the book shelf.

It can be speculated into why evaluation results have so little impact. One explanation could be that the requestor of the evaluation project did not get the results wanted. This in turn can depend on a number of aspects, but one likely contributor is that there was a disagreement between the evaluator and the requestor on the evaluation assignment. The importance of clear contracts is well known within project management (Halman & Burger, 2002; Murtoaro & Kujala, 2007) and has been stressed within the field of evaluation (Carelink, 2005; Davis & Stecher, 1987).

In this paper, we will present a case study of evaluations performed at an e-health institute. The case study was originally performed to learn about and understand the evaluation practice, in order to improve it. This analysis will focus on the role of the evaluation contracts in the local practice of e-health evaluation. The descriptive knowledge produced by this analysis can be used to develop normative knowledge about how to develop good evaluation contracts. This would be a useful contribution to the local practice of the research institute as well as the general practice of e-health evaluators and to researchers within the area of e-health evaluation methodology.

## 2 Background and theory

The practice of e-health evaluation takes place in the context of the healthcare system. In order to fully understand this local practice this section will start with a short description of healthcare organizing and e-health. The focus of the analysis will be the evaluation contract. The local practice of e-health evaluation studied could belong to (at least) two general practices: evaluation and project work. Some knowledge from those two areas will also be described in this section and will then be used to discuss the practice of e-health evaluation and the role of evaluation contracts. The Theory of Practice by Goldkuhl and Röstlinger (2006) explains the transactions of work practices and the role of product orders in this transaction. Product order can be translated into evaluation contract and the model has then been found as a useful instrument to analyze the role of the evaluation contract in the transaction of evaluation projects.

### 2.1 Healthcare organizing and e-health (in Sweden)

The practice of healthcare has some commonalities worldwide, even though the organizing of it varies because of different political systems in different countries. Healthcare efforts could be divided in prevention and treatment. All inhabitants are offered different preventive services to help them remain healthy, for instance programs for smoking cessation. Ill people are offered diagnosing and treatments to their diseases and a person receiving this are called a patient. Most countries divide their healthcare organizations into outpatient and inpatient care, where the outpatient care is more open to patient where they could get a first diagnosis or diagnoses to more general diseases and more easy treatments and the inpatient care is more specialised and often requires a hospital stay.

---

<sup>1</sup> Also referred to as evaluation of healthcare/medical information system or evaluation in Medical/Healthcare Informatics.

In Sweden healthcare is almost free for all inhabitants. Patients only pay a small fee for doctor's appointments, treatment visits and hospital nights and for some of their drug consumption. The rest of the costs for healthcare are tax funded. Most of the healthcare is provided by the 20 County Councils in Sweden but home care for elderly people is provided by the municipalities. Because of the funding system the Swedish healthcare has limited monetary resources, which is one of the reasons why they have been quite late in the adoption of IT in comparison with the private business sector. Another explanation might be the political governance. Sweden has three governmental levels the national level with the parliament and the government, the county councils and the municipalities. Each county council has a great amount of self-rule, but some decisions are made at the national level. The Swedish association of Local Authorities and Regions tries to be a coordinator between the county councils and municipalities in some matters. The National Board of Health and welfare is a controlling organ of the county councils and municipalities to secure the quality of health and one of the tasks are also to interpret the laws from the parliament into guidelines and prescription for the healthcare organizations.

Within a county council the organization is divided both from levels and types of healthcare and from a geographical view. Outpatient healthcare are mostly provided by Healthcare Centres and inpatient healthcare is provided by different clinics often clustered at a hospital. Each healthcare unit has some degree of self-rule and are to some degree obliged to central decision making. When IT-systems were first introduced within the healthcare organizations it was mostly on the initiative from single healthcare units and even single people within those units. The county councils now have central IT-departments and IT strategists and the trend is to use IT within more healthcare units and support more tasks, to have lesser different systems and to integrate both systems and healthcare units with the use of systems.

e-Health is the common concept for all kinds of IT-systems and applications that are used to support healthcare, both health prevention, diagnosing and treatment. There are two major groups of e-health users who are the patients or inhabitants and the healthcare staff. Stakeholders of e-health were mentioned in the introduction and those could be several different people, with different roles. The patient is a stakeholder of good care provided by the healthcare organizations with the support of IT. Healthcare staffs are stakeholders of useful and practice supporting IT-systems to facilitate their healthcare work. Clinic and healthcare centre managers are stakeholders of the IT-systems supporting the functioning of the whole healthcare unit. Managers of the county council as well as politicians are stakeholders of value for money.

## **2.2 Project management and eHealth evaluation**

The performance of each e-health evaluation assignment is unique and is therefore generally managed as a project. Knowledge from the area of project management could therefore be used to analyse and discuss the practice of e-health evaluation and in particular knowledge on the role of project contract of which the evaluation contract is a special form. e-Health evaluation is also a special kind of evaluation as to whether theoretical knowledge from the field of evaluation could also be used to analyze and discuss the practice of e-health evaluation.

Projects are characterized as time limited, with the purpose of solving unique tasks and are goal-steered (Tonnquist, 2008). In a project an assignment is given from someone, an assigner or project requestor, to someone, an assignment taker who often becomes the project leader. The requestor has certain expectations on the project outcome and could have considerations and constrains on how the project is performed. The requestor also provides the project leader with resources to perform the project. Projects could be more or less formal and the project contract could be oral or written. When written it could be signed by both parties and serve as an agreement. The project contract should state what should be made, when, how and what resources that are available. The project leader is in charge of the project and is responsible to deliver the expected results to the project requestor. The project contract could then be used to measure if the project has delivered what it was supposed to.

The role of the project contract has been studied within project management. Murtaoro and Kujala (2007) have studied the process of getting to a project contract as a negotiation between a client and a contractor who has different frames of thoughts. They also believe that project contract negotiation is a topic where more research is needed. Halman and Burger (2002) have studied the effectiveness of project start-ups and have found that they contribute to a better understanding of project purpose, scope and objectives. They also suggest a need for the development of better methodological support. Koskinen and Mäkinen (2009) have studied boundary objects in negotiations of project contracts and have stressed the usefulness of knowledge visualization as a tool to reach a shared understanding.

Evaluation as a discipline started within politics and public health in the US in the 1950ies. Now evaluation is performed for instance within the school system, in organizations in general and with a special interest in the evaluation of IT, areas adding to the theoretical body of knowledge within evaluation. Since evaluation is used within such very different areas it has been defined in several different ways, but what we think is a good definition is that *evaluation is the systematic determination of the meanings, qualifications and values of something or someone.*

Evaluation has some general characteristics (Stufflebeam & Shinkfield, 2007). What is evaluated is called the evaluation object, which could be a product, process or effect. Evaluation could be performed with several different purposes and a general distinction can be made between formative and summative evaluation. Formative evaluation is performed during something in order to contribute with improvements directly in the process. Summative evaluation is performed after something in order to check if it was successful or not.

Since evaluation is systematic it is performed with the use of some method and metrics. Different variables are valued in different evaluations depending on the evaluation object and the purpose of the evaluation. The selection of variables could be supported by different evaluation models. To collect data all the known research techniques like interviews, surveys, observations etc could be used. The evaluation of e-health has some commonalities with evaluation of IT in general but has also been treated like an own sub-discipline within health or medical informatics (Brender, 2006b).

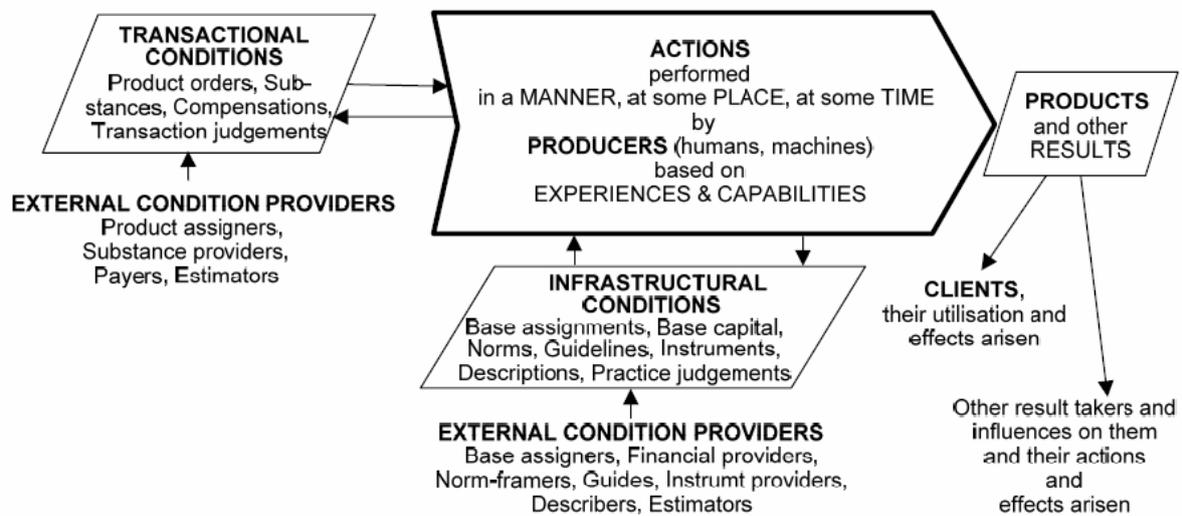
Davis and Stecher (1987) provide guidance on how to focus an evaluation. They describe it as a process where the evaluator gradually learns and makes an understanding of what to evaluate. The evaluator must first learn about the situation of the requestor; the evaluation object, the needs and expectations of the requestor, stakeholders, demands and limits for the evaluation. The focus process should result in an evaluation plan, serving as a contract between the evaluator and the requestor. The evaluation plan should define evaluation questions or variables to be measured, evaluation procedure and what resources that would be needed for the evaluation.

Carelink (2005) made a study of 36 e-health evaluation projects in Sweden reported between 1992 and 2004. One of their conclusions is the importance of clear and good evaluation contracts in order to get high quality evaluations. They suggest that the evaluation contract should include: the purpose of the and goals of the IT investment, the planned organizational benefits, why the evaluation is requested, what the result would be used for and who the stakeholders are.

### **2.3 Practice Theory**

The unit of analysis in practical research (Goldkuhl, 2008) is a practice. A practice could be defined as some people acting in favour of some other people. The Theory of Practice (Goldkuhl, 2005a) is expressed in a generic model of work practices, which describes the components, relations, and context of a work practice. The model is based on a synthesis of several theories of action, communication, and organization, referred to as socio-instrumental pragmatism (Goldkuhl, 2005b). The theory is constantly improved from both empirical and theoretical grounding. The version of the model used in this paper (Goldkuhl & Röstlinger, 2006) highlights two dimensions of work practice categories: transactional and infrastructural (see figure 1). The focus of the study was the transactional condition product order. However, transactional and infrastructural conditions interact in performing

the actions within the practice. Therefore in order to understand the role of the product order, both types of conditions need to be considered, even if the transactional conditions will be in most focus.



**Figure 1.** The general model of work practice, Goldkuhl & Röstlinger, 2006.

*Transactional conditions* are product orders, substances, compensations, and transaction judgments. The transactional conditions are the input of a transaction and the output is a product (or some other result) for a client. Normally, a number of different transactions are being performed within a work practice, either serially or in parallel. Transactions could be described at a type level, but also instances of specific transactions can be captured. A *product order* is an initiative for production that could express what to produce and sometimes even complementary expectations on when and how. *Substances* are the raw products that are transformed into products and could for instance be some material, information, people or a situation. Substances are often, but not always, consumed during production. Most work practices require some *financial capital* to manage. Usually clients pay for their products, which are a compensation for the transaction, but there can sometimes also be other payers. Clients also make *judgments* of the product they receive, which is a judgment of the transaction. Product orders are provided by *requestors*, who can be the client or some other actor. Substances can be provided from other transactions internally or by external *providers*.

*Infrastructural conditions* are base assignments, base capital, norms, guidelines, instruments, descriptions, and practice judgments. Infrastructure is the underlying foundation that supports the transactions. *Base assignments* are role assignments, product repertoire and resource assignments. A role assignment describes the duties of a specific person or a group of persons. The product repertoire defines the product types that the work practice should or could produce. Resource assignments prescribe how resources may be used generally concerning all transactions of a work practice. Knowledge can be presented orally or in writing. *Descriptions* are descriptive knowledge, facts about important circumstances in and outside the work practice. *Guidelines* are procedural knowledge that prescribes how to do. Externalized descriptions and guidelines can be in the form of books and other documentation. *Instruments* are all kinds of supporting tools, apparatus, machines, and other equipment. Guidelines and instruments can be produced within the work practice but are normally provided by external actors. *Norms* are value expectations that tell what to do and what not to do in typical situations. Norms can be more or less formal, informal norms can emerge within the work practice but formal norms, for example laws, comes from outside from norm-framers. *Practice judgments* are assessment of transaction types or the infrastructure. *Base capital* is money provided by funders or owners in often in support of the infrastructure.

### 3 Inquiry

The study object was a research institute (from now on referred to as the institute) that conducts e-health evaluation projects, both consultant assignments and projects with a varying degree of research. The institute is organized as a separate unit of a university department and has now been active for almost a decade. Several evaluators have performed several evaluation projects during several years at the institute and therefore, the institute as a collective is assumed to have a substantial amount of experience from evaluating e-health.

The inquiry of the e-health evaluation practice has consisted of three studies of data collection; a document study, a survey, and a focus group interview. Different variables have been studied in each of the data collections, why a triangulation has been made. The researcher has been involved with the research institute in different ways since the start, as a participator and project leader of evaluation projects. Therefore, the three more explicit data collection studies have been complemented with participative observational studies, even though these studies have not been formal and documented; they contribute to the researcher's prejudices.

Firstly, in the *document study* the reports of the performed evaluation projects were studied. The inclusion criteria were that the evaluation report had to be final. Reports from projects other than evaluation projects and reports that were not reports of evaluation results were excluded. Projects that were not completed (i.e. reported) by the time of the study were excluded too. The result of the inclusion/exclusion process was 26 selected reports published between 2004 and 2010 (in scientific journals, proceedings of conferences or at the web of the institute). The reports were read at least twice by the researcher and were subjectively analyzed with the following model: year of publication, evaluation purpose, evaluated object, evaluation method used, results presented, and recommendations given. The selection of variables was made based on evaluation theory (see for example Brender, 2006b; Irani & Love, 2008; Stufflebeam & Shinkfield, 2007).

Secondly, a *survey* was sent to the project leader of each project studied. The purpose of the survey was to collect data about aspects that could not be captured in the study of the reports. The survey included questions about the project requestor, evaluation directives, the balance of control between requestor and evaluator, evaluation method used, reporting of project results, and effects of evaluation. There was one questionnaire for each project, implying that a project leader of many projects received several questionnaires to handle. Questionnaires were distributed by e-mail and answers could be returned either electronically or on paper. Answers were not anonymous. Of the 26 distributed questionnaires 22 were completed and returned. All respondents did not complete all questions, leaving some internal loss.

The third data collection was a *focus group interview*. All co-workers now working at the institute with evaluation projects were invited. No one declined to the invitation and there were 8 participants at the group interview. The researcher acted as a moderator. The discussion was directed by the following themes: initiation of projects and the formulation of assignments, the planning process, method selection, performance of the project, reporting of results, and follow-up on project results and performance. The discussion was also focused on the experience of the evaluators and their needs for future methodological support. The interview were taped and transcribed in its entirety and analyzed qualitatively in order to find patterns.

The collected data material could be used to describe the whole practice of the institute performing e-health evaluation. However, the analysis within this paper will focus on the evaluation contract and aspects of the evaluation practice in relation to that. Analysis has then been based on a piece of each of the three data collections. The practice has been analyzed as a transaction according to the Theory of Practice, presented in section 2.

## 4 Analysis

The work practice of the institute is to perform e-health evaluation projects for evaluation requestors. The focus of this analysis will be on the role of the evaluation contract. One way of describing e-health evaluation is as a transaction, see figure 2. This way of describing e-health evaluation will be used in this paper to analyse the role of the evaluation contract.

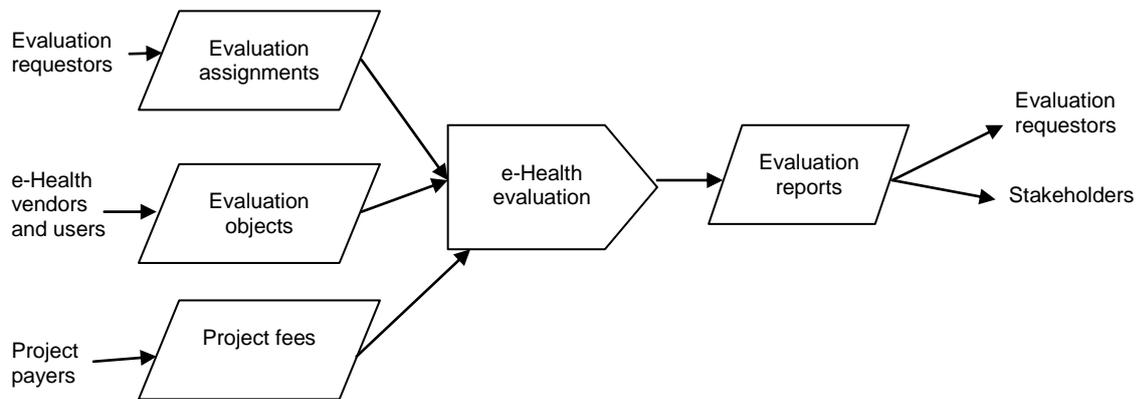


Figure 2. The transaction of e-health evaluation.

e-Health is IT that are used in support of health and medical care. Mostly the *evaluation object* is an IT-system that is used within one or more organizations. Two *evaluators* perform most of the less research based evaluation projects. The research team changes dynamically over time, depending on people and projects but consist of PhD students, junior and senior researchers and supervisors. Their competences are multidisciplinary since they origin from areas like Informatics, Economics, Computer Science, Work Science, Pharmacology, Medicine, Health Science, Sociology, Biomedicine and Media Science.

### 4.1 Evaluation requestors

The institute receives evaluation assignments from two main categories of *requestors*. The institute has three base funders, who are one County Council, one Regional Council, and the Medical Products Agency. The base funders can suborder evaluation projects from some of their base funding, or actively expressed they are *subscribers* of evaluation projects. The kind of evaluation assignment is not given, though, but negotiated between the funders and the institute. The funders have a representative that could suggest evaluation assignments. Most often the needs of evaluation arise elsewhere within the funders organizations. Other people within, for example the County Council, can then suggest an evaluation project from the institute, either by contacting the institute or the representative. Either way the project will have to be approved by the representative.

Evaluation assignments could also be received from others, what is called *external evaluation requestors*. Until now, there has been a low amount of those external requestors for the institute, but they are increasing. Those requestors can be other County Councils, municipalities, private healthcare organizations, pharmaceutical companies, political authorities, interest groups and IT developers and vendors. Attracting those kinds of requestors is a question of promotion. One of the reasons to the increasing amount of those requestors is due to the fact that the institute is starting to have an experience. Potential requestors are starting to know about the existence of the institute. Often, the requestors have heard about evaluation reports from the institute and have sometimes also read

something. It is important for the institute to be seen and heard in many different situations and this is now starting to pay off.

In the questionnaire to the project leaders, there was a question of who the requestor to the evaluation project was. The results showed the distribution of projects for different requestors to projects that were reported during the period 2004 to 2010, see table 1. Most evaluation projects were requested by the County Council and the Pharmacy<sup>2</sup>. This seems natural since they were two of the funders.

Requestor	County Council	Municipality (and County Council)	Pharmacy	Political authority or interest group
Number of projects	10	1	9	2

Table 1. The distribution of the project requestors of the institute from projects reported 2004 to 2010 .

## 4.2 Evaluation project negotiation

The requestor is familiar to his organization and speaks that language. The evaluator does not know very much about the evaluation object and instead speaks the language of evaluation. The requestor may know fairly well what kind of evaluation he wants, but most often he doesn't know or he believes he knows. Both the requestor and other stakeholders may also have different hidden agendas when it comes to what they aim with the evaluation and its results. This is the situation to proceed from when formulating an evaluation assignment. If the assignment is not formulated well it can harm the evaluation. It gets hard for the evaluator to plan and perform the evaluation. There is a great risk that the assignment will change during the progress of the project. The evaluation project will not produce the results that the requestor wanted and he will not be satisfied, which will not lead to new requests for evaluation.

The process of landing an evaluation project is most often quite lengthy. It starts with the requestor having some idea about a need for an evaluation. The requestor then makes contact with the institute. Most often, the contact is to the head of operation but it can sometimes be to one of the other employees and loose discussions about feasibilities of the evaluation then starts. It is not seldom, though, that the wish of an evaluation project is not based enough within the requestors organization or that the solvency is in line with wish. It can take quite some time until the practical ground for the project is formed and that the timing is right.

There are a number of challenges and pitfalls in the discussion between the requestor and the evaluator. One thing is the likely discrepancy between the knowledge base of those two actors. The requestor can have different roles within the organization; he can be a project leader of the implementation project, some kind of executive or sometimes an employee. The requestor can then have different degrees of knowledge about the organization and the IT-system to be evaluated. The requestor has also differing degrees of knowledge and experience in evaluation and project management in general. The evaluator knows about and has experience of evaluation and project management but has different degrees of knowledge about the organization and the IT-system to be evaluated. It is not rare then that the evaluator and the requestor speak totally different languages. There is a challenge in mutually understanding each other.

The requestor wants the evaluation project for a *purpose*. Examples of purposes found in the questionnaires to the project leaders at the institute are:

---

<sup>2</sup> In the studied period there was a monopoly in selling drugs in Sweden and the supplier was the National Cooperation of Pharmacies, which then were one of the funders of the institute. After the reorganization the funding role was taken over by the Medical Products Agency.

- Basis for decision making about purchase, implementation or winding-up of IT-systems.
- Means to promote the new IT-system.
- Follow up on whether the IT-system is accepted and used or if it has brought the results and effects that were anticipated.
- Groundwork for redevelopment of IT-system and organizational routines.

Besides the requestor there might be other *stakeholders* to the evaluation and its results. Other stakeholders might want other things from the evaluation than the requestor. Sometimes the requestor of the evaluation project knows what he wants and sometimes he doesn't. The situation can also be that he thinks he knows but when the evaluator asks the proper questions, it turns out that the requestor in reality wants something else. What the evaluator wants might also be a little bit wrong and the evaluator can suggest something that turns out to be better. There could also be hidden agendas here – the evaluator says he wants something for some purpose but in reality has another implicit purpose. The hidden agenda can depend on the role that the requestor has within the organization.

### 4.3 Evaluation project contracts

Getting to an evaluation project contract is also a process. The evaluation contract is used by the evaluator as a base and directive for planning and performing the evaluation project. Certain aspects need to be cleared and defined within the contract, in order for the evaluator to be able to plan and perform the project. The contract often starts as oral and then transforms into a written document. The evaluator can have several meetings with the requestor to discuss the evaluation assignment. During those meetings, the evaluator asks a number of questions. What questions that are asked depend on the experience of the evaluator. For example, the evaluator must find out what to evaluate, why, how, and when and how the requestor wants to have it presented.

In the questionnaire there were two questions about the evaluation contracts: if they were clearly articulated by the requestor from the start and if there were changes to them during the ongoing of the project. An analysis was performed to find possible correlations between clear evaluation contracts and changes to the assignments during the project. However, the material of the studied projects was too small to be able to find any such correlations.

Clearly articulated evaluation contracts from the requestor		
Written	Verbal	No
3	10	8

Changes to the evaluation assignments during the project		
No	After an opening discussion	Several times during the project
12	4	4

Table 2. *The articulation and change of evaluation assignments at the institute in projects reported from 2004 to 2010.*

When the evaluation contract finally has been written down it is signed by the evaluator and the requestor and then works as an agreement. The evaluation is planned and performed according to the contract and then presented to the requestor and maybe also other stakeholders. The requestor is more or less pleased with the evaluation results. If the requestor is displeased, it can be either because the evaluation was not produced in the way the evaluator really wanted or that the results were not as positive (or negative) as expected. The latter is of course nothing that could be prevented<sup>3</sup> but that could on the other hand the former. If the evaluator is not pleased with the evaluation results, it can be

<sup>3</sup> It is important to note here that the institute takes a lot of pride in its independence and honesty and a requestor can never order a favorable result.

because of flaws in the evaluation assignment – there was a misunderstanding between the evaluator and the requestor about what to be delivered.

In the questionnaire to the project leaders there were a question about how pleased the requestors had been with the result they received. However, the question was equivocal as described above and could possibly also include the way the results were being presented. It would, though, be of interest to investigate the correlation between the evaluation assignment and the satisfaction of the requestor. The results from the survey were also that the project leaders to a large degree were unaware of appreciation of the requestor. The fact that requestors return to ask for more projects, tells that they are not so displeased.

## 5 Discussion and further research

The previous analysis indicates that the evaluation contract plays two roles within this e-health evaluation practice; as an agreement between the requestor and the evaluator and as a directive for the evaluator when planning the project. We will now first discuss the role of the project contract as an *agreement*. Murtoaro & Kujala (2007), Koskinen & Mäkinen (2009) and Davis & Stecher (1987) describes the very different knowledge and frames of thoughts of project requestors and project leaders. This was also confirmed in the case study of the e-health evaluation practice. Each evaluation situation is highly unique and complex, with different requestors, evaluation objects, demands, purposes, goals, expectations, available resources, stakeholders etc. For each new evaluation project as Davis & Stecher (1987) say the evaluator must learn about the requestor and what he/or she wants. Murtoaro & Kujala (2007) and Koskinen & Mäkinen (2009) also describe the process of reaching a project contract as a negotiation. The project requestor formulates what he/she wants and it is interpreted by the evaluator and compared to what he/she could offer.

Murtoaro & Kujala (2007), Koskinen & Mäkinen (2009), Halman & Burger (2002), Davis & Stecher (1987) and Carelink (2005) all stress the importance of clear project contracts, because if the evaluator does not know what the project requestor expects he/she has little chance of delivering what the requestor wants. It couldn't be concluded from this case study but a clear project contract might also make it less probable for the project requestor to change his/hers demands during the project. Since each evaluation project situation is unique, the evaluator also needs knowledge about the evaluation object and the prerequisites for the performing of the evaluation in order to plan for the evaluation and later conducting it. Therefore the evaluation contract also serves as a *directive* for the evaluator.

In the studied practice, the process of reaching an evaluation contract was not supported by any methodological tools; instead the evaluators worked based on their experience and since they have been performing a number of evaluation projects during the years, this experience is well grounded. The literature has suggestions on how to formulate project directives in general (Halman & Burger, 2002; Murtoaro & Kujala, 2007) and evaluation contracts in particular (Carelink, 2005; Davis & Stecher, 1987). But the needs of more methodological support in the process of negotiating and focusing evaluation projects have also been stressed. The understanding of the two roles of the evaluation contract could be used together with previous research findings to develop methodological support for negotiating and formulating evaluation contracts.

The plan for future research is a normative contribution on how to negotiate and formulate the evaluation contract, which will be grounded in both theory and an empirical input from the evaluators at the institute. Such a contribution will be of interest for the local practice of the institute, but would also as well contribute to the general practices of e-health evaluation and project management.

## 6 Conclusion

From this case study at the institute, it has been suggested that the evaluation contract has two major roles – as a directive and as an agreement. It works as a directive for the evaluators in their planning and performing of the evaluation project and it works as an agreement between the requestor and the evaluator. The evaluation contract has a very important role, because if it is not correct and properly expressed the evaluation project risks running in the wrong direction, delivering the wrong results and the requestor will not be satisfied. A displeased requestor will not return for more assignments and can also spread the word giving the evaluating practice a bad reputation that will also not attract other requestors.

## References

- Anderson, J, G & Aydin, C, E (2005) *Evaluating the Organizational Impact of Healthcare Information Systems*, Springer.
- Brender, J (2006a) *Evaluation of Health Information Applications – Challenges Ahead of Us*, *Methods in Information in Medicine*, 45, 62-68.
- Brender, J (2006b) *Handbook of Evaluation Methods for Health Informatics*, Elsevier.
- Carelink (2005) *Utvärderingar av IT-investeringar inom vård och omsorg – en sammanställning och analys av resultat och metoder I svenska utvärderingar*, Report in Swedish.
- Davis, A & Stecher, B, M (1987) *How to Focus an Evaluation*, Sage Publications.
- Goldkuhl, G (2005a) *Workpractice Theory – What it is and Why we need it*, in Proceedings of the 3rd International Conference on Action in Language, Organisations and Information Systems, University of Limerick.
- Goldkuhl, G (2005b) *Socio-Instrumental Pragmatism: A Theoretical Synthesis for Pragmatic Conceptualisation in Information Systems* in Proceedings of the 3rd Intl Conf on Action in Language, Organisations and Information Systems (ALOIS), University of Limerick
- Goldkuhl, G (2008) *Practical Inquiry as Action Research and beyond*, in Proceedings of the 3rd International Conference on Action in Language, Organisations and Information Systems, University of Limerick.
- Goldkuhl, G & Röstlinger, A (2006) *Context in focus: The transaction and Infrastructure in Workpractices*, in Proceedings of the 4<sup>th</sup> International Conference on Action in Language, Organisations and Information Systems, Borås, Sweden.
- Halman, J & Burger, G (2002) *Evaluating effectiveness of project start-ups: an exploratory study*, *International Journal of Project Management*, 20, 81-89.
- deKeizer, N, F & Ammenwerth, E (2008) *The quality of evidence in health informatics: How did the quality of healthcare IT evaluation publications develop from 1982 to 2005?*, *International Journal of Medical Informatics*, 77, 41-49.
- Koskinen, K, U & Mäkinen, S (2009) *Role of boundary objects in negotiations of project contracts*, *International Journal of Project Management*, 27, 31-38.
- Moehr, J, R (2002) *Preface: Evaluation of health information systems: beyond efficiency and effectiveness*, *Computers in Biology and Medicine*, 32, 11-112.
- Murtoaro, J & Kujala, J (2007) *Project negotiation analysis*, *International Journal of Project Management*, 25, 722-733.
- Stufflebeam, D, L & Shinkfield, A, J (2007) *Evaluation Theory, Models & Applications*, Josse-Bass, San Fransisco.
- Tonnquist, B (2008) *Project Management*, Bonnier, Sweden.