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Abstract

Education plays an unquestionable role in society. Various sociological models of what education does, how it works and the problems involved explain why it constitutes a battleground for potential social and political conflict. How education is measured or evaluated is equally conflict material. In the present article, traditional evaluation models are applied in a somewhat atypical context: Greenland. Here, the government launched an ambitious education reform in 2005 aimed at increasing both the level and quality of education. The results of the evaluations have been 'disappointing' thus far – the reform has failed. The article begins by presenting different evaluation models applied in the Greenlandic context (program and summative evaluations). Second, a discussion of findings covering the initial period 2005–10. Finally, a change in evaluation strategy is suggested with Michael Quinn Patton's developmental evaluation model. Is it fair, relevant or constructive to examine education in Greenlandic society through the evaluation lens from a European society?

Evaluering som disciplinering i uddannelsessektoren i Grønland

Uddannelse spiller en stor rolle i samfundet. Variationen i de mange forskellige sociologiske (forklarings)modeller på området indikerer at det er et område med potentiel social og politisk konflikt. Det samme gælder for begrebets forskellige måder at blive defineret og målt på. Fokus for artiklen er målinger og evalueringer af uddannelsessektoren i Grønland. Her vedtog Landstinget i 2005 en ambitiøs uddannelsesplan, hvis formål var at styrke uddannelsesindsatsen såvel kvalitativt som kvantitativt. Resultatet har efter den første evalueringsperiode været 'skuffende'. Uddannelsesplanen er ikke lykkedes som planlagt. I artiklen præsenteres indledningsvist forskellige evalueringsmodeller på den grønlandske situation. Dernæst diskuteres resultaterne fra perioden 2005-2010. Endelig foreslås en revideret evalueringsstrategi med udgangspunkt i Michael Quinn Patton's udviklingsevalueringsmodel. Artiklen finder, at det hverken er fair, relevant eller konstruktivt at undersøge uddannelsesområdet i Grønland gennem en europæisk evalueringsoptik. Perspektivet illustreres gennem Foucault's post-strukturelle og postmoderne perspektiv på magtens forskellige former: hvilke kampe introduceres, når evalueringsmodeller fra moderne, højt-teknologisk udviklede europæiske lande applikeres på en naturafhængig inuit-kultur?

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Introduction

‘How’, not in the sense of ‘How does it manifest itself?’ but ‘By what means is it exercised?’ and ‘What happens when individuals exert (as they say) power over others?’ (Foucault, 1982:217)

Education is a central institution in all cultures. The most general usage of the term denotes upbringing (of the young); the guiding assumption being that education is merely another term for socialisation in the broadest possible sense, and when we look closer at the concept and what it means, the forms it takes and so forth, it follows that research in education – not surprisingly – is one of the broadest, most widespread and criticised disciplines. Education represents a potential source of social and political conflict. When education is evaluated, the battlefield also includes the evaluation itself. Evaluation becomes part of the means by which power is exercised.

The background for the present article is an education reform passed in Greenland in 2005. The Greenlandic Ministry of Education approached me – as part of my work in the Department of Political Science at the University of Copenhagen – to evaluate the reform and identify areas for change or barriers to education. In 2011 (after 5–6 years of evaluation in the education sector), the educational scene has not changed as expected.

The purpose of the present article is to assess, discuss and explain the apparent paradox concerning the need for education and the accompanying (slow) diffusion process as seen through the looking glass of evaluation: What is going on in the education sector? Why is the education reform not a success? And consequently: What changes may be suggested in the evaluation approach? I have chosen to supplement the picture with Foucault’s post-structural and post-modern perspective on forms of power: Which battles are introduced when evaluation models from contemporary high-tech European societies are used in a nature-dependent Inuit context?

Sociological Perspectives

The discussions are presented within the frames of the sociology of education. Education is studied partly to understand the important mechanisms in the context, partly to control them; and most significantly to change them (Fulcher & Scott, 2007).

In a historical context, two perspectives present themselves: consensus and conflict approaches to education. Not necessarily opposing perspectives, they are rather different viewpoints that may apply in different situations.

The *consensus approach* understands society as an organism that develops from something less complex to something more complex, a process which takes place in all arenas. In the educational institution, the processes are visible; educations multiply and become increasingly specialised. Students stay in school longer. We talk about lifelong education in order to adapt to the increasing complexity of society.

What is central to the consensus view is that the state assumes the role of the bastion of efficiency and fairness. It does not serve special interests but represents a triumph of social democracy where all are equal before the law. ... Along with the problem of socialization, the education system also takes increasing responsibility for what is assumed to be the selection of the most able individuals to ensure economic efficiency and social justice (Lauder et al., 2006: 8–9).

The consensus approach lies within the positivistic paradigm, where society is to be studied through methods drawn from the natural sciences (Boolsen & Jacobsen, 2011); data are ‘hard’ facts (typically numbers), and the epistemological position means that people (e.g., students, teachers) are identified through objective categories (e.g., sex, age, place of birth). This perspective has dominated the Greenlandic government and administration in the area of education.

A hermeneutic approach is also part of the employed evaluation. The study of social behaviour and social institutions takes place in a certain context (Berg-Sørensen, 2011; Boolsen, 2006; Fuglsang & Olsen, 2004), where understanding and interpretation are crucial elements. The epistemology is to consider people as being unique and responsible for their own actions. Data are subjective and often labelled ‘soft’. The holistic perspective is characteristic of the Greenlandic culture. For the study of interaction and processes in the education system, the case study research strategy (Yin, 1994) is used.

The *conflict approach* to education was developed in order to explain why things did not go as predicted in the consensus approach. The crucial explanatory factor is social class. Different social classes determine different conduct, different possibilities, different opportunities etc. Equal opportunities do not exist; some have greater opportunities than others, which is often associated with social class. Both neo-Marxist and Weberian lines of thinking are found in the conflict approach.

In recent decades, the sociology of education has been under growing pressure from the ‘cultural’ perspective as expressed in post-structuralism and post-modernism (Lauder et al., 2006, 13). Some researchers find ‘that security in one’s heritage and identity are crucial to educational success, [and] this constitutes a major omission in Marxist thought’ (Lauder et al., 2006, 64). Foucault’s contribution to the sociology of education lies in his work and analysis of discourses and hidden governance techniques. He developed the concept of ‘governmentality’, which describes a certain way of controlling and exercising power that is characteristic in modern society (Larsen et al., 2011: 219). In a very interesting text, he discusses the different processes and raises important questions about how power is exercised in different situations and under different circumstances (Foucault, 1982: 208–226). The Inuit culture is very much part of the debate in contemporary Greenland in relation to the changes and transformations taking place. Foucault’s concept has been inspirational in highlighting some of the basic strategic and political discussions as to *what* (is taking place), *how* (can we understand and interpret data) and *then what* (are the consequences?).

Politics, Economy, Social Welfare, Education and Climate

The largest island in the world, Greenland is sparsely populated; the population is approximately 56,000, roughly 10,000 of who are Danish. The greatest population concentration is in the capital of Nuuk, where approximately 16,000 persons live (Statistics Greenland, 2012). The Inuit population is in the majority – as a matter of fact, Greenland is the only free society in the world where a minority culture is in absolute majority. Geographically, Greenland has a considerable topographic profile (i.e., deep fjords and high mountains). Transportation between cities is by air, boat or dogsled, if possible. Greenland has abundant resources inland (e.g., gold, cadmium, zinc, rubies, olivine (for aluminum production)), enormous water resources, and oil has been found.

Change and increasing change are key concepts when characterising the Greenlandic context. The country experiences great challenges in almost every area of life: political, economic, social welfare, education and with regard to the climate. Historically, Greenland has been inhabited since around 2500 BC. Colonised by Denmark in 1721, Greenland became affiliated with Denmark on more equal terms in 1953. Home Rule was instituted in 1979, and a 2009 referendum resulted in the replacement of Home Rule with self-governance. The administrative authority rests with the Danes (Høy, 2004), however, who continue to hold most of the top positions in Greenlandic society.

Greenland is struggling with serious social welfare problems, many of which are similar to other minority cultures that have been taken over by a larger, more powerful culture.

The old legends express the holistic way of thinking in traditional Inuit culture, including descriptions of the interaction between culture, nature and man. The legend about the orphan Kassasuuk who is suppressed during his childhood illustrates a way of fighting back. Kassasuuk is helped by a spirit in the mountains who shows him how to develop his mental and physical powers. A statue of Kassasuuk stands outside the government building as a reminder of the ‘cooperation’ between Greenland and Denmark. Another legend, about the Mother of the Sea, deals with the consequences of taking too much from nature. The Mother of the Sea controls the marine life, and she gets angry if too much is taken from her. When fishermen take more fish than they need, she hides all of the marine life in her hair, which needs careful combing before she will again allow the seals, whales and fish out in the open water. Finally, I will mention the legend of Qivitoq, which is about defeat. Qivitoq is a man (always a man) who heads for the mountains after defeat (perhaps a rivalry over a woman or a failed hunt) – and never returns. It is impossible to find him after he has fled to the mountains and therefore impossible to know if he is dead; you might hear him crying when you are in the mountains.

These and other stories are important elements in Inuit culture. They are told over and over again, stressing the holistic aspect. In one of my interviews with a young Greenlander with a university degree, I asked if his education had fulfilled his expectations. He responded, ‘You are asking the wrong question, Merete.

You see, I failed the Greenlandic education; I did not qualify to become a hunter'. His poor hunting skills had indirectly driven him to pursue a university degree (unpublished material from 2009). His answer also indicates how the hermeneutic scientific paradigm is helpful when trying to understand what is going on and what can be done when education changes are implemented.

The Education Reform

In 2005 the Greenlandic Parliament *Landsstyret* initiated an ambitious education reform aimed at strengthening efforts in education both quantitatively and qualitatively. At the time, education levels were comparatively low; a mere one-third of the population in the labour market had continued past elementary school. Education was regarded as 'necessary' by the *Landsstyret*, and the *goal* of the education reform was to increase the figure to two thirds by 2020. The *purpose* of the evaluation was to point out central aspects in the educational picture that could be changed, modified or developed in order to reach the goal of the reform. The *means* were first and foremost financial. (Landsstyret, 2005).

The education reform targeted two groups: (1) elementary school pupils, the aim being to get them to continue their education when they have left the elementary school system, and (2) unskilled workers under age 50, the purpose being to get them to pursue training. During the first phase of the period (2005–2012), Target Group 1 has been under observation. During the last phase of the period (2013–2020), Target Group 2 is in focus. For this article, Target Group 1 is relevant.

Evaluation Considerations

Problems Approach

In all scientific work, the problem being analysed and the possibility to obtain an answer depends on the scientific approach, research design, data and analytical tools.

The Ministry of Education requested the evaluation. Because of the complexity of the sector, decision was made to take a pluralistic approach and approach the education reform from different perspectives – identifying different problems, employing different evaluation models, constructing different types of data and applying different analytical theories. Change, adaptation and variety were key concepts, but administrative and evaluation resources were scarce; and over time, pluralism turned into one track.

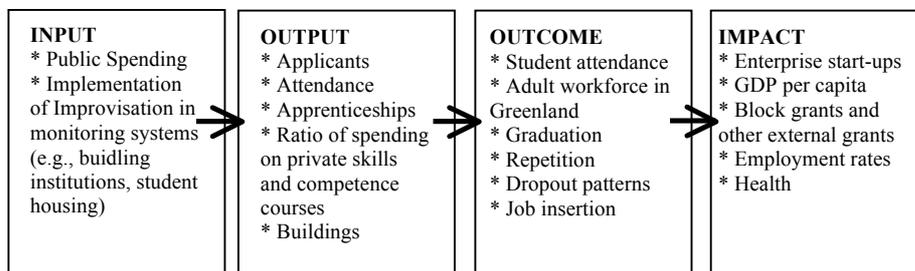
Summative Evaluation

Denmark is a member of the EU, and so was Greenland given the affiliation between Denmark and Greenland. Greenland left the EU in 1989. As a non-member the country can apply for regional financial aid. Greenland receives approximately € 26 million annually for the education reform. The Commission is of course monitoring the activities on a yearly basis. They rely on quantitative

indicators, and the figures have mainly been produced by Statistics Greenland for the Ministry of Education.

The evaluation model is a simple summative model that operates with INPUT-OUTPUT-OUTCOME-IMPACT variables. See Figure 1.

Figure 1: The Summative (EU) Evaluation Model



Note: 'Job insertion' refers to 'a) Number of graduates from formal educations obtaining a job and b) Job insertion after attending Piarersarfitt' (Agency of Industry, Labour, Vocational Education and Training 2011, 30)

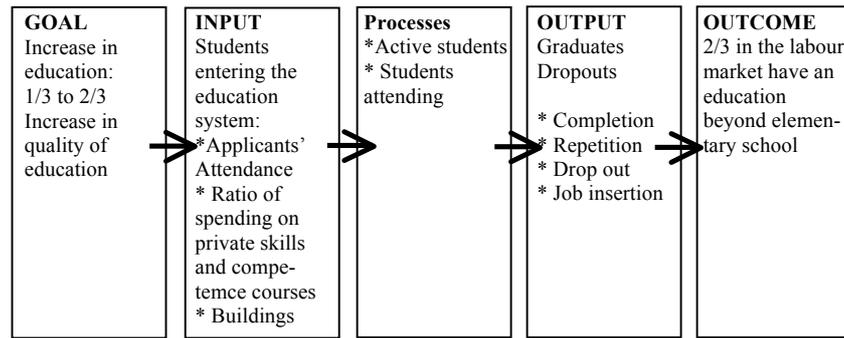
Formative Evaluation

From the very beginning, the administration was interested in detailed knowledge about what was 'going on'. Decision was made to supplement the summative evaluation model with a formative model in order to include qualitative and process perspectives aimed at understanding and exploring the situation from the student perspective: What does education mean to you? What are the motives behind your choice of education? What would you like to do with your education? What do you think you will be doing in ten years? What are your expectations and dreams (Boolsen 2012)?

Evert Vedung's program-evaluation model provided inspiration (Vedung, 2000) in terms of its focus on goals, resources, output and outcome and his definition of evaluation stressing the 'use aspect'. According to Vedung's 'basic' definition: 'Evaluation is a careful retrospective assessment of the merit, worth, and value of administration, output, and outcome of government interventions, which is intended to play a role in future, practical action situations' (Vedung, 2000: 3).

A formative evaluation model was developed (see Figure 2). The process from input to output deals with the active students. By examining the flow process examining how students move through the education system, knowledge is gained about correlations that might allow cause-and-effect conclusions.

Figure 2: The Formative (Administration Level) Evaluation Model



Note: 'Job insertion' refers to 'a) Number of graduates from formal educations obtaining a job and b) Job insertion after attending Piaarsarfiiit' (Agency of Industry, Labour, Vocational Education and Training 2011, 30)

Comparing the Two Evaluation Models

The two evaluation models supposedly supplement each other, but comparison reveals that the indicators for output in the summative model are used as indicators for input in the formative model, and some of the outcome indicators (in the summative model) are placed under output in the formative model. In other words: the models use identical data, data have different names in the two models (and therefore imply and mean different things) and will accordingly lead to different conclusions and have different consequences. In this case, civil servants in the Ministry of Education made a very important decision when choosing to use quantitative measures for qualitative purposes. Utilisation-focused evaluation stresses that decisions about factors such as variables, measurements, possible conclusions and consequences are 'negotiated' with the 'primary intended users' (Patton, 2012). In the evaluation of the education reform, 'primary intended users' will vary according to the area being evaluated, the purpose, goal and so forth. The 'battle' between the two models deals with the power to decide about inclusion, exclusion, definition and data measurement.

Data and Findings

Quantitative Data: What Do They Tell Us?

A statistical snapshot of the education of a young person leaving elementary school in 2010 shows the probability of continued education being less than 50 per cent (before 2010, the pupils were even more likely to discontinue their education (Inerisaavik, 2011: 3)).

Table 1: Students Entering Education Institutions – Completion Figures, Drop-out Figures and Active Students

YEAR	2005	2006	2007	2008	2009	2010
Number of students	2700	2917	3040	3334	3414	3680
Graduates	581	597	679	716	754	799
Dropouts	639	689	675	706	809	875
Active students	1480	1631	1686	1912	1851	2006

Absolute numbers. 2005–2010. Unpublished material for the Ministry of Education supplied by Statistics Greenland 2011.

The tables (1, 2, 3 and 4) provide information about education volume over time: the students who have continued their education – vocational training and secondary school or higher education (= post-secondary school), completion figures, drop-out statistics, and figures for the remaining group of ‘active students’. The tables are produced by Statistics Greenland and intended for the European Commission monitoring the education reform in the years 2005–2010. The statistics illustrate an increase in the size of the education system. Every year the figures are higher than the previous year – see table 1; more students are entering the education sector, and more education is being produced in terms of higher completion figures. However the dropouts outnumber the graduates. On the one hand the figures show that the relationship between the individual factors (graduation and dropping out) is relatively stable in this period, indicating that the education sector has grown without becoming more ‘efficient’. On the other hand we are faced with paradox that an institution whose purpose is to educate is more likely to produce drop-outs than education. The situation is highly problematic.

Table 2 shows selected factors from the period under observation. The table includes an outcome indicator (12.a) used by EU. The goal of the education plan (see section 4 of the present article) is that by 2020 2/3 of the workforce has a post-secondary education. In relation to indicator 12a, the administration explains that the number describes ‘how many have a job after 18 months’, which is a very different situation. Also I suggest using the figures carefully, as we do not know how many stop working after a short period (which tends to be a common pattern).

With regard to the demographic factors gender, age and urbanisation, Table 3 provides the following information: Women are overrepresented in the education sector; relatively more women start an education than men; and relatively more women graduate than men. There is a more even distribution between the sexes among the dropouts. In conclusion, women represent the educational elite; they are more likely to get an education and are better educated. The pattern is relatively constant during the period of observation (for more, see Boolsen, 2008a, 2009a-e, 2010a).

Table 2: Selected Factors in the Development from 2005–2010. Unpublished material for the Ministry of Education supplied by Statistics Greenland 2011.

Year	2005	2006	2007	2008	2009	2010
4a. no. of students Vocational training and high school	1,925	2,077	2,178	2,410	2,484	2,649
4c. no. of students Higher education (= post-secondary school)	775	840	862	-924	930	1,031
5. Apprenticeships	1,098	1,100	1,098	1,316	1,376	1,377
9. no. of students - graduates	581	597	679	716	754	799
11a. no. of students – drop-outs (%)	639	689	675	706	809	875
	23.7	23.6	22.2	21.5	23.7	23.8
12a. in the workforce after graduation	---	---	---	62.50%	65.60%	--
4. GDP per capita	---	187,341	195,729	209,610	215,806	215,759
16. Total workforce	28,715	29,473	29,431	29,326	29,522	--

With regard to the students' place of birth both tables show that the proportion of students from cities is increasing. The conclusion may be false, because the number of students with no information about this variable is decreasing over the years.

Table 3: All Students according to Gender, Age, Place of Birth. Summary of unpublished material for the Ministry of Education supplied by Statistics Greenland 2011.

Year	2005	2006	2007	2008	2009	2010
ALL STUDENTS	2700	2917	3040	3334	3414	3680
Male (%)	45	44	42	43	45	45
Female	55	56	58	57	55	55
	100	100	100	100	100	100
<= 24 years (%)	64	62	62	64	66	65
> 25 years	36	38	38	36	34	35
	100	100	100	100	100	100
City (%)	66	67	68	70	73	74
Country	12	13	14	13	13	14
No info.	13	12	11	10	8	7
Born outside Greenland %	8	8	7	7	6	6
	100	100	100	100	100	100

Table 4 examines the ‘active’ students, i.e., those in the process of pursuing an education.

Table 4: Active Students according to Gender, Age, Place of Birth. Summary of unpublished material for the Ministry of Education supplied by Statistics Greenland 2011.

Year	2005	2006	2007	2008	2009	2010
ACTIVE STUDENTS	1480	1631	1686	1912	1851	2006
Male (%)	45	43	39	43	43	45
Female	55	57	61	57	57	55
	100	100	100	100	100	100
<= 24 years (%)	69	63	66	66	70	68
> 25 years	31	37	34	34	30	32
	100	100	100	100	100	100
City (%)	70	69	70	73	77	77
Countryside	11	12	14	13	12	12
No info.	10	10	8	7	6	4
Born outside Greenland (%)	9	9	8	7	6	6
	100	100	100	100	100	100

Practical and ‘technical’ recommendations from the summative evaluation also focus on the need for housing and buildings for education, the need for apprenticeships, the need for more qualified teachers, the need for available (and cheap) Internet access, the need for Greenlandic books/reading materials, and the need for more qualified academic advisers.

Qualitative Data: What Do They Tell Us?

The qualitative investigations and case studies have attempted to describe, understand, interpret and supplement the quantitative data: What is education for the modern Greenlander? What are the barriers? What are the challenges? What can the political system do to change the education picture in accordance with the purpose and goal of the education reform?

Some of the studies have identified what Merton (1968) would call ‘mechanisms’: situations or contexts in which the interaction between the variables provides a more meaningful picture than the cause-and-effect, independent-dependent variable description. ‘Mechanisms refer to choices and capabilities which lead to regular patterns of social behavior’ (Pawson & Tilley, 1997: 216). The ‘mechanisms’ in different education arenas are reported in the annual monitoring reports in which the combinations of quantitative and qualitative studies have been presented. The most important mechanisms have resulted in recommendations to observe, change and influence transitions in education from home

to school, to secondary school and onwards; transitions in personal life from home to a different life in a different place; transitions in roles – the role of the student, of the apprenticeship and so on. Academic counselling is important, but typically not in the conventional sense of the student approaching an advisor for academic advice. They need help with what to do when homesick, missing family and encountering difficulties in their new (educational) surroundings, where they lack knowledge about how to act when assuming the role of the student and how to make friends and form study groups with other students. They also have difficulty finding adequate housing, making money ‘stretch’ for an entire month, where to do their laundry and so on. They have very simple and very practical problems that do not solve themselves – they need information about life-as-a-student (Boolsen, 2008b-c, 2009a-c, 2010a-c, 2012).

The overall message from the qualitative studies is that the ‘cultural dimension’ must be prioritised; they must learn what it means to go to school, study and get an education. Cultural aspects are process variables which are not included in the positivistic paradigm. The battle is between the quantitative and qualitative dimensions, where the former is prioritised by the administration in the Ministry of Education, and the latter is more meaningful and more important for the Greenlandic students, parents and teachers. There is a serious risk of the education reform exaggerating some of the very differences in the Greenlandic population that it is aimed at eradicating.

Analysis and Interpretation: What Can Be Concluded?

Leonard Bickman has been working with evaluations; why and how they fail, which by the way is not an uncommon situation. He recommends a certain systematic procedure when trying to investigate explanations for the situation (Bickman, 1987). The program theory in the Greenlandic situation contains a few simple assumptions about why the program should work; but something else is going on. Program evaluation can make important contributions to social science theory if the program (independent variable) and measures of program process and outcome (dependent variables) are theoretically meaningful. These variables are theoretically meaningful if they are high in construct validity. We as evaluators can help ensure good construct validity by developing sound program theory. (Bickman, 1987: 7)

There are two important discussions here. The first deals with the political situation, the other with the academic situation. The political situation deals with the contribution of evaluations to policy makers. The Ministry of Education has an interest in being able to generalise the results from an evaluation. They want – and need – to know if the results of a particular program (or particular evaluation) will be recommendable in another situation; they want to know if they can generalise.

The answer in the Education Reform evaluation is both ‘yes’ and ‘no’. On the macro level, it is possible to generalise the results of an evaluation, but on the micro level it is much more questionable; specific contextual factors are im-

portant here, because definitions, circumstances, goals, decisions and the like may be so different that reliable and valid predictions are not possible. And this is precisely the case here, because so many factors change at the same time. Differentiation regarding the educational area will improve the model and is recommended.

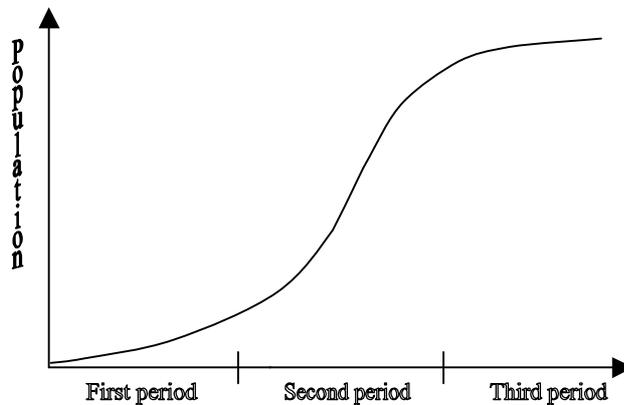
With regard to the academic situation, Bickman (1987: 10) recommends scrutinising the situation by distinguishing between program failure and theory failure.

Failure to find program effects can be due either to the wrong theory or the program not being properly implemented. A third cause of failure can be due to a faulty evaluation design. Design, measurement, and statistical power problems could produce a Type II error; that is, finding no difference when in fact the program was effective. In planning an evaluation the evaluator must be able to defend the design, measurement, and statistical analysis so that if a no-effect finding is obtained, the basis for this finding is not considered the evaluator's fault (Bickman, 1987: 10).

The three dimensions – (1) theory-fault, (2) implementation-fault, and (3) evaluation-fault – are discussed below.

With regard to the first explanation, *theory-fault*, the recommendation is to examine the evaluation and clarify if the theory is working according to plan; if not, perhaps the theory is not usable or applicable. It is useful for evaluations to work with theories of social change, and here Rogers' 'diffusion of innovations' theory was applied (Rogers, 2003). The theory is very general and you may argue that it does not bring much to the analysis, but I find Rogers interesting, because he sees the diffusion process as a 'mechanism' for context, process and development. The diffusion of a phenomenon takes the shape of an exponential S-curve – see Figure 3.

¶ Figure 3: The Exponential S-Curve



The theory operates with three major periods of change, referred to as the first, second and third periods in Figure 3. According to the theory, social change takes place in the shape of an (exponential) S-curve. At first, change takes place very slowly, and those involved in the change are usually characterised as innovators – young men from urban areas with high social status and educated parents. The second period, the diffusion process, is followed by a period of rapid change involving the majority of the population – only to be characterised by a period of very slow change – the third period – that primarily takes place among a population consisting of older citizens living in less populated areas with (very) little or no education. Applied to Greenland, the education reform would change very little in the beginning; that is, the figures would increase slowly, followed by a period of rapid change.

This does not seem to be the case. As Tables 1–4 illustrate, we have evidence for stagnation or extremely slow change during the first 6–7 years after the introduction of the education reform. How can this be explained?

With regard to Bickman's second explanation – implementation-fault – the evaluation program is not working according to plan because the implementation procedures have failed. Bickman points out that 'implementation failure may not be caused by failure to follow procedures but by failure to apply the program to the appropriate target' (1987: 11).

The evaluation recommendations over the years cover transitions combined with counselling in the education system (Boolsen, 2008a, 2009a-e, 2010a-c). The recommendations also cover housing – or lack thereof.

In all of the areas of implementation, a cultural dimension is apparent. Young people in Greenland face many transitions at the same time when continuing their education beyond elementary/primary school. They are a minority and have to overcome 'social inheritance' in terms of how few (or no one) of their family members or friends have previously pursued an education. They lack role models, and 'change' is a common denominator for most of them. 'Loss' is another. Recommendations were made regarding the need for solutions in these areas – some short-term, others long-term. Since the dropout rate is higher than the success rate (graduation), I have suggested that the area be given extremely high priority in order to minimise personal failure and secure the completion of education programs (Boolsen 2008a, 2009a-e, 2010a-c).

In order to investigate conditions in general around an implementation-fault, a questionnaire was distributed (in the autumn of 2011) to the administrative authorities in the Ministry of Education in order to identify which recommendations had been followed and how.

The results indicate that the recommendations from evaluator have been valued and accepted as valid, but they have not been implemented, primarily because of a 'lack of resources'. What has taken place after the recommendations were passed on boils down to activities on the administrative level as observed in conferences, initiating more evaluations and initiating more discussion and (political) debate, but nothing in the shape of concrete measures or altered practices has been established. The only explanation given is that 'change takes longer in

Greenland', the conclusion being that, following the initiation of the evaluation, the administrative level has worked with the results and recommendations without applying the recommendations.

It is therefore argued that implementation-fault is present in the education reform evaluation.

[In a personal conversation with Michael Quinn Patton (in 2012) about the evaluation he has suggested that this is (normally) what happens when you 'Speak truth to power'].

Bickman's final explanatory factor is evaluation-fault, meaning that the program is not working according to plan because the evaluations could not identify (intended) effects due to bad/poor design (Bickman, 1987). As revealed in the discussion above, different lines of thinking in relation to evaluation and evaluation models have been applied.

As became apparent in the discussion above, the formative evaluation design was unsuccessful primarily because the process perspective was inadequately researched. The evaluation-fault is present in the education reform evaluation.

From Bickman's point of view, the conclusion is that some measure of theory-fault, implementation-fault and evaluation-fault is present in the evaluation of the Greenlandic education reform.

Foucault's 'governmentality' perspective is used to show how the positivistic scientific paradigm has won most of the skirmishes in the battlefield. The recommendations for cultural change that agree with the hermeneutic scientific paradigm have not taken place.

Strategy for a Revised Evaluation Approach

How is power exercised through evaluation models? The brief and simple answer is:

- by focusing on political and/or strategic variables and disregarding the context of the project being evaluated,
- by focusing on purpose and (political) goals and disregarding the context and needs of the target groups, and
- by focusing on old and traditional ways of evaluation (primary summative evaluation), thereby disregarding the many possibilities offered by more recent evaluation research.

With regard to the evaluation reform in Greenland, a more concrete and precise answer has been offered through discussion of three questions: (1) What is going on in the education sector? (2) Why is the education reform not a success? (3) Which changes can be suggested in the evaluation approach? As regards the first question, we see that change and diffusion are extraordinarily slow. Studies of the processes in the education system and students' lives suggest that this is due to excessive focus on the organisational factors in combination with a lack of attention to the 'cultural' dimension in Greenlandic society. Severe battles and power struggles take place between positivistic and hermeneutic scientific para-

digms, where the former is dominant within the Ministry of Education, while the latter is in agreement with the majority among the education reform target groups. With regard to the second question, ‘Why is the education reform not a success?’, the findings show that it has been possible to change behaviour (in some areas) but not to change attitudes as much as necessary in order to fulfil the goal of the education reform and the purpose of the evaluations. Ogburn (1966) termed the phrase ‘cultural lag’ around a hundred years ago to characterise this situation. Some of Ogburn’s advice on how to minimise the lag is considered useful in the Greenlandic situation. Bickman’s three explanations and discussions regarding evaluation results are applied (theory-fault, implementation-fault and evaluation-fault). Implementation-fault is identified as an important factor; the Ministry of Education has *not* applied the part of the evaluation dealing with cultural elements in the educational picture, including changes in interactions, processes, transactions and dynamics. And they have been unable to change the dropout patterns; it is ironic that despite all of the EU money, the students are still more likely to drop out than to complete the program. With regard to the third question, ‘What changes may be suggested in the evaluation approach?’ a revised evaluation strategy is suggested.

In the case of the education reform, the size, impact and importance of the reform have been underestimated. *Differentiation* in a revised evaluation strategy is therefore a key concept.

Michael Quinn Patton (2011; 2012) discusses aspects of the power struggles and shows how many of the key issues in the education reform may be prioritised and integrated in evaluation models. He suggests a paradigmatic shift in perspective – instead of *improving* the applied practices, it is better to *develop new ones* (Patton, 2011).

Patton has been working along the lines of developmental evaluation and utilisation-focused evaluation for many years. His basic ideas focus on the need to face complexity and reality simultaneously. He pays attention to the different dimensions in problems when differentiating between simple, complicated and complex problems and when he demonstrates the consequences arising from applying theory and developing praxis hereafter.

Patton takes an academic approach in his work and concentrates on the uses of an evaluation with regard to the evaluation discipline – just like Vedung. This is crucial, because an evaluation with no intention of being used is another way of postponing (important) decisions. The battlefield then shows a confrontation between those who launched the education reform in 2005 (viz. Landstinget/the politicians) and the administrative authorities who prevent relevant changes.

In brief, I recommend a developmental evaluation approach involving the following changes in the evaluation model of the education reform: (1) differentiation with regard to the different education sectors, (2) differentiation according to the complexity of the field or the problem under observation, and (3) introduction of the change aspects in more explicit ways in the evaluation model. The last suggestion requires a paradigmatic shift away from the positivistic and

natural sciences to the hermeneutic, social constructivist paradigm. Patton's work (2011) with developmental evaluation is highly recommended.

As the article suggests, Michael Quinn Patton's recommendations would change the education picture in the far North.

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