Education For All in the Arctic?

A survey of available information and research

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Education For All in the Arctic?
PREFACE

This report presents the findings from a document survey about equitable education in the Arctic region. The study is funded by Kunnskapsdepartementet – the Norwegian Ministry of Education and Research - and will be used as background information in an initiative to focus on the UNESCO objective of Education For All (EFA) in the Arctic. We would like to thank the ministry for giving us this interesting and challenging task, and in particular we would like to thank Halfdan Farstad and Ellen Lange from the Norwegian National Commission for the UNESCO. Halfdan Farstad has been our main contact during the course of our work, while Ellen Lange has provided valuable feedback on the report.

Limitations with regard to time, language difficulties, lack of information in some areas, and a multitude of information from other areas, makes it necessary to state right from the beginning that this does not try to present itself as a complete and fully comprehensive study of the issues raised. We may have overlooked important sources that people who have detailed knowledge about the education system and situation in the respective countries, view as central. Another important fact is that because this study has Norway as its origin, both with regard to funding and the researchers’ backgrounds, our frame of reference and main source of knowledge is the Norwegian education system. This may have influenced what we have been looking for in the other countries, even if we have tried not to be restricted by this. In spite of these limitations, we hope that the information presented in the study will help throw light on the important issue of education as a central resource and challenge in the process of enhancing the opportunities for children and youth in the Arctic regions.

We would also like to thank colleagues who have helped provide relevant sources of information for our work. We would in particular like to thank Inna Rhyzkova of Murmansk Pedagogical University for her help in providing access to information about Russia, and Ray Barnhardt for providing very helpful information about Alaska, in particular about the situation for indigenous peoples in Alaska and in the Arctic more generally.

Karl Jan Solstad headed this project from the beginning, but because of unforeseen causes he has not been able to take part in writing the report. He has, however, provided the framework for the study and has also given valuable advice and commented and corrected a draft version of the report.

Agnete Wiborg and Wenche Rønning have written the report, while Trond Bliksvær has provided statistical information used in the different chapters. Agnete Wiborg is responsible for the chapters on the Nordic countries, and she has also written the two introductory chapters. Wenche Rønning is responsible for the chapters on Alaska, Canada and Russia, and she has also compiled and edited the report. The final chapter has been written jointly by Wiborg and Rønning.

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1 EDUCATION FOR ALL IN THE ARCTIC REGION

1.1 ABOUT THE STUDY

The current report presents the results from a pilot study in relation to a possible larger initiative for Education For All (EFA) in the Arctic, initiated by the National Commissions for UNESCO in the Arctic region.

The goal for the EFA declaration was formulated in Dakar, Senegal, in 2000 as six objectives:

(i) expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children;
(ii) ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality;
(iii) ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes;
(iv) achieving a 50 per cent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults;
(v) eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls’ full and equal access to and achievement in basic education of good quality;
(vi) improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

This is an introductory and exploratory mapping and analysis of the educational situation for the Arctic region defined as countries or areas where parts or all of its landmass is north of the Arctic Circle. The countries and areas/regions include:

- Alaska in the USA,
- Nunavut, Yukon and the Northwest Territories in Canada,
- Greenland (Denmark),
- the counties Nordland, Troms and Finnmark in Norway,
- the counties of Norrbotten and Västerbotten in Sweden,
- the county of Lappland in Finland,
- Iceland,
- and northern parts of Russia, including Kola and Siberia.

The map on the following page shows the Arctic defined in three different ways – as territory lying north of the Arctic circle, as defined in the Arctic Human Development Report (ADHR) and as defined by the Arctic Monitoring and Assessment Programme (AMAP). As we can see from the map the AHDR study has made a definition of the Arctic which goes far beyond including only areas which are situated north of the Arctic Circle. A detailed description of which areas they have included in their definition can be found on page 17 in the report. The AMAP definition comes from a research programme which mainly looks at pollution and changes to the climate in the Arctic. The programme’s secretariat is located in Oslo, Norway.

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1 Source of information: [www.unesco.org/education/efa/ed_for_all/dakfram_eng.shtml](http://www.unesco.org/education/efa/ed_for_all/dakfram_eng.shtml)
1.2 OUTLINE OF AND QUESTIONS ASKED IN THE STUDY

The study includes pre-school, compulsory education and post-compulsory education, including vocational education. The mapping and analysis discusses the provision of and access to education, participation, attainment and educational careers, including drop-out. Where possible, comparisons are made between different countries and geographical areas within countries, and between different groups in the population, including gender and ethnic groups.

The main questions asked in the study are:

- To what extent are children and young people in the Arctic provided with an equitable and satisfactory education?
- Are children and young people in the Arctic achieving as well educationally as are those from further south? Are there any differences in this respect between various groups within the Arctic (ethnic groups, geographical groups, occupational groups)? What about differences between countries?
- How can possible differences between the Arctic and the rest of each country, between groups within the Arctic of each country, and within the Arctic across countries, with respect to the above-mentioned issues be explained?

To throw light on these kinds of broad questions, we have, to the extent possible, tried to provide information from the countries included, regarding the following:

The formal education provision

- The formal school system from pre-school (kindergarten) to higher education, including also vocational training. The beginning and end of compulsory education.
- The political/administrative unit or level responsible for providing education at the various levels (municipality, region/county, state/national level).
- Possible information on the present school acts (for instance on special legal arrangements for indigenous groups).
• National curricula – special arrangements or regulations for pupils/students in the Arctic. Any special considerations as to curriculum content for the indigenous groups in the Arctic. “Regional Components”, “National Specifics” - any details as to definitions and relative weight as part of the total curriculum content.

The quality of the formal provision
• School buildings, equipment, teaching materials, per pupil spending. Possible national standards.
• Coverage of qualified teachers, turnover of teachers. Any special arrangement (financial stimuli, housing schemes, etc) for recruiting teachers and school leaders in the Arctic.
• Special initiatives for providing qualified teachers for indigenous groups such as arrangements for recruiting young people from indigenous groups for the teaching profession.
• Arrangements for school transportation and/or away-from-home lodging of pupils.
• Extent and quality of “regional components (and possibly “national specifics” in the actual teaching.

The outcome of the education provision
• Proportion of children in Kindergarten at various age groups.
• Completion rates and drop-out figures in secondary (post-compulsory) education.
• Attendance rates (or amount of truancy) in primary and secondary education.
• Educational achievement: Test results, exams etc. allowing for comparisons between relevant groups.

1.3 METHOD AND EMPIRICAL MATERIAL

The documentation we have been trying to find to answer the questions outlined above comprises the following:

• National educational statistics allowing for comparisons between Arctic regions/areas and other regions/the rest of the country.
• Educational statistics providing information about indigenous peoples within the Arctic.
• Official/governmental documentation on education in the Arctic regions, such as White Papers, national surveys etc.
• Relevant educational research about or comparing regions in the Arctic.

The exploratory and multinational nature of the study has created many challenges. Our task has been to find and trace links to various kinds of material which could help us create a picture of the education situation in the Arctic region. A main challenge has been to find material where the Arctic region as a whole or parts of it, has been the empirical point of departure. As pointed out in the Arctic Human Development Report (AHDR 2004), circumpolar studies are almost non-existent. In addition, the Arctic as such is very rarely or not at all an empirical point of departure for research studies or national public reports. Therefore, we had to search for material presented in different national sources such as websites for ministries, directorates and available national and regional statistics and information. We have also made searches in relevant databases for scientific journals on issues related to education, youth, indigenous populations and regional/rural issues in the region. This material has been used to trace other relevant sources of information.

The delimitation of the Arctic as a geographical area seems to be more based on political than scientific considerations. Therefore, it has been necessary to use other approaches to find empirical material. The questions posed in this study constitute an intersection of dimensions producing and reproducing social inequality such as social and cultural background (ethnicity), gender and the rural/urban dimension. In this project additional dimensions for our analysis are related to different kinds of educational systems within a geographical region in different countries. Finding empirical
material which matches the criteria for the questions posed in this study has therefore been challenging.

On the other hand, the searches we have made have given us more material and produced more problems for discussion than we are able to present and analyse properly because of its complexity. The situation varies considerably within the Arctic region and within each country. We can therefore only present fragments of the complex situation and discuss some central issues which have come out of our material. The presentation of the different countries will also differ due to variation of the material we have found.

In this report we try to give a short description of the Arctic areas, the education system in each country and particular challenges related to school and education in the different countries. Greenland and Iceland represent special cases where both countries are islands, and the whole country is considered as a part of the Arctic, even if nearly all of Iceland is situated south of the Arctic Circle and has a temperate climate. Greenland and Iceland can also be considered as contrasts; in Greenland the indigenous population is the majority while there is no indigenous population in Iceland. And while Greenland still struggle in different ways with its colonial past, Iceland has a long history of independence. However, both Iceland and Greenland face common challenges related to communication and long distances between settlements, and this makes the rural-urban dimension a central challenge with relevance for the educational situation. We also discuss the meaning of education in different contexts and thereby the meaning of Education for All.

We have only been able to use material written in English and in the Scandinavian languages (Norwegian, Danish and Swedish), and this is something which limits the information we have been able to make use of from Finland, Iceland, Greenland and Russia. Because of language challenges the Russian material has been the most difficult to provide, but with help from our research partners at Murmansk Pedagogical University, we are able to provide some information from the northern regions in Russia.

1.4 THE OUTLINE OF THE REPORT

After this introductory chapter where the background and approach of the study are outlined, we present some background and theoretical perspectives on the Arctic region and the question of equitable education in the Arctic in Chapter 2. Chapters 3 to 10 present the information and data we have been able to provide from the different regions which comprise the Arctic, starting in alphabetical order with Alaska and ending with Sweden. Chapter 11 presents briefly some research which compares Arctic regions, and in the concluding Chapter 12 we present a summary of findings and also suggest areas that need further research in the coming work to support Education For All (EFA) in the Arctic.
2 THE ARCTIC REGION – BACKGROUND ISSUES

2.1 ABOUT THE ARCTIC REGION

The Arctic region can be described as relatively sparsely populated with a few urban centres, with the exception of Russia where the population is more centralised. The north-south dimension is in many ways linked to a centre-periphery dimension related to political, economic and cultural power. In the Arctic region the rural-urban distinction is also a central aspect of the north-south dimension.

The Arctic region is also characterised by relatively rapid changes. The primary industries are generally more important in these areas and the transformation to a society more dominated by service is more recent as compared to other parts of the countries. Because of this, the importance of formal education has therefore changed more rapidly in these areas due to the previously mentioned developments, and the young also meet quite different challenges in the labour market as compared to their parents. This is reflected in there being large differences in the educational level between generations. The development of communications, particularly electronic, has made it possible for people in these areas to participate in the larger society in new ways.

The population in the northern parts of Norway, Sweden, Finland and Russia have been strongly centralised during the last decades. The consequences of this differ between the countries. In spite of a number of closures of small schools in Norway over the last two decades (Solstad 2008), there is still a relatively high number of small schools remaining due to natural conditions and the political agreement that all children should be able to attend a school as near as possible to their home. In Finland and Sweden, however, many of the small schools have been closed and the centralisation has led to longer transportation for the school children. In Russia there are not many people living in sparsely populated areas. Most of the people in the Kola Peninsula, for instance, live in fairly large cities and towns. However, there are reindeer herders who live in remote and sparsely populated rural areas, and their children often attend boarding schools (Ahonen et al. 2008).

2.2 INDIGENOUS PEOPLE

A common characteristic for regions within countries in the Arctic is that there is a larger part of indigenous population in these regions as compared to other parts of these countries. However, this also varies a great deal between the countries, from being the majority in Greenland, half of the population in Canada, to a small minority in Sweden and Finland and being non-existent in Iceland.

The two maps below provide images of the distribution of indigenous populations in the Arctic areas. The first one is taken from the Arctic Human Development Report (AHDR) and shows the total population and the indigenous population of the Arctic regions. The second one is taken from the website of ANSIPRA – Arctic Network for the Support of the Indigenous Peoples of the Russian Arctic, an organisation which is located at the Norwegian Polar Institute in Tromsø, Norway.

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2 Four different concepts are used in this report: indigenous, aboriginal, native and first nation. This is due to different traditions in different countries. Generally, we have tried to use the concept which is being used in the document we refer to.
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(AHDR 2004:19)
Indigenous peoples’ rights are stated in Convention no. 169 concerning Indigenous and Tribal Peoples in Independent Countries. The convention was adopted by the International Labour Organisation (ILO) in September 1989 and was put into force from September 1991 for the countries which had ratified it. With regard to how it is decided which people are indigenous, the convention has adopted the principle of self-identification. This is stated in Article 1, second paragraph:

> Self-identification as indigenous or tribal shall be regarded as a fundamental criterion for determining the groups to which the provisions of this Convention apply.

The convention has a separate section on education and means of communication (Part VI) and within this section there are four articles which define indigenous peoples’ rights with regard to education:

**Article 26**
- Measures shall be taken to ensure that members of the peoples concerned have the opportunity to acquire education at all levels on at least an equal footing with the rest of the national community.

**Article 27**
- 1. Education programmes and services for the peoples concerned shall be developed and implemented in co-operation with them to address their special needs, and shall incorporate their histories, their knowledge and technologies, their value systems and their further social, economic and cultural aspirations. They shall participate in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly.
- 2. The competent authority shall ensure the training of members of these peoples and their involvement in the formulation and implementation of education programmes, with a view to the progressive transfer of responsibility for the conduct of these programmes to these peoples as appropriate.
- 3. In addition, governments shall recognise the right of these peoples to establish their own educational institutions and facilities, provided that such institutions meet minimum standards established by the competent authority in consultation with these peoples. Appropriate resources shall be provided for this purpose.

**Article 28**
- 1. Children belonging to the peoples concerned shall, wherever practicable, be taught to read and write in their own indigenous language or in the language most commonly used by the group to which they belong. When this is not practicable, the competent authorities shall undertake consultations with these peoples with a view to the adoption of measures to achieve this objective.
- 2. Adequate measures shall be taken to ensure that these peoples have the opportunity to attain fluency in the national language or in one of the official languages of the country.
- 3. Measures shall be taken to preserve and promote the development and practice of the indigenous languages of the peoples concerned.

**Article 29**
- The imparting of general knowledge and skills that will help children belonging to the peoples concerned to participate fully and on an equal footing in their own community and in the national community shall be an aim of education for these peoples.

19 countries had ratified the convention by June 2008. Norway was the first country to ratify the convention as early as June 1990. Amongst the other Nordic countries, Denmark has ratified the convention, while Sweden and Finland have not and neither has Russia, Canada nor the USA.

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4 Source of information: [www.ilo.org](http://www.ilo.org)
2.3 EQUITY IN EDUCATION

Equity in education has, as Grubb (2005) points out, been a concern for almost all countries, whether developed, transitional, or in the process of developing. Inequality in education, whether inequality is measured as differences in achievement based on tests, differences in educational attainment and completion of education, or more abstract conceptions like opportunity, is partly an issue of equity, or its close synonym fairness (ibid.).

However, equity in education is, like Grubb (ibid.) claims, more than an issue of fairness and distributive justice. Many countries are now trying to develop their human resources as one element in the process of enhancing economic growth and international competitiveness. In this context inequity within education implies that human potential is being wasted, because not all individuals have been given the opportunity to develop the relevant competence to perform well in a modern society. This represents a problem both for the society and for the individual.

From a societal standpoint large numbers of under-educated individuals may fail to contribute to national economic development and may generate social costs, either directly through welfare costs, or through their indirect impact on social problems. From an individual standpoint, lack of adequate schooling and school-based competences usually leads to lower earnings, higher levels of unemployment, and the many correlates of poor economic conditions, including family instability, worse health, greater stresses of several kinds, lower levels of political participation, and a general inability to participate in the richness of a modern society (ibid.).

Education is a central means for socialising young people into a society. The meaning and importance of formal education, both the education system and the content presented through the curricula, must therefore be understood in the local cultural and social context.

The education system has three overlapping, but also to a certain degree, conflicting motives (Solstad and Thelin 2006):

- **Development**: To provide an education that helps the members of the society develop their skills and potentials.
- **Liberation and equalisation**: Develop the individuals’ capacity to make free choices and to improve their own and their group’s position through participation in society.
- **Efficiency and competition**: To increase human resources for economic growth and international competitiveness.

The political weight given to the different motives will influence the development of the education system. This will give different consequences for pupils living in various parts of the Arctic region, due to structural, economic, geographical, social and cultural differences between areas. Therefore, there are three important questions to be asked related to the provision of an equitable education for all in context of the Arctic:

- the question of access and localisation of schools,
- the question of content and relevance, and
- the question of quality in educational provision (ibid.).

Lynch (1996) identifies the following equity objectives:

- Equity as equal formal rights and opportunities, focussing on equality of access.
- Equality of participation: Focus on enabling and encouraging equal participation.
- Equality of success and outcome – ensuring equal rates of success or outcome for particular marginalized and excluded groups.
- Equality in conditions.
Lynch thinks these equity objectives form a continuum. Without transformation on many levels simultaneously, in curriculum structures, management structures, organizational systems, teacher education, the state and educational mediator, Lynch claims that transformation of education cannot occur.

To answer these questions properly, it would be necessary to give a more elaborate description of the different areas and social and cultural contexts for provision of education than we are able to present. However, we can point to some general factors.

2.4 ACCESSIBILITY

Education in the Arctic region is in general regionalized. It involves mostly small populations in remote communities and few urban centres. However, there are considerable regional differences, as mentioned previously in Section 2.1. This is particularly linked to differences in population density and therefore differences with regard to access to and availability of educational institutions. Accessibility concerns time, distance and economy. Whether it is possible to live at home and attend school without having to commute or live at a boarding school is important in this context. Comparison of the educational systems must take into account the infrastructure. In Alaska and Greenland, for example, there are communities which are accessible only by air, and of those connected by road, some are only connected to the surrounding areas by winter road for a few months a year.

Accessibility also has a social and cultural aspect. Ideally, the school should provide the pupils with the opportunity for intellectual and personal development. At the same time, a central aim for the school is to educate the pupils into becoming good citizens. An important condition for achieving this is that the pupils should not experience a cultural distance between their social and cultural background and the school. The social and cultural distance pupils might experience can be related to both the organisation and to the content, and to curriculum and teaching. Studies have demonstrated that student motivation and success increases when teachers make school subjects relevant to the students’ situation and the community in which they live (Hovdenak 2003, Solstad 1997). An important issue concerning equitable access to education is therefore related to the balance between local, regional and national authority and control over education including curricula and teaching methods. This is particularly relevant in relation to indigenous populations.

2.5 CURRICULUM AND HIDDEN CURRICULUM

Education concerns socialization into a society, where students should be learning basic skills, knowledge and values enabling them to become a full member of the society. Education is both formal, through the education system, and informal, through the family and the local community. In this way education, both formal and informal, is not a neutral enterprise. Education concerns learning and developing skills, values, history, languages and ways of thinking and behaving. The educational system imparts central cultural values, knowledge and information that are meant to contribute to personal development and also to socialise people into becoming good citizens. In this way the educational system plays an important part in the construction of a nation. An explicit aim of the school is to educate the children to becoming good citizens and to pass on the cultural heritage and tradition, and this links directly to the cultural fundament and ideas related to the nation. Both the structure and the content as well as the explicit and the implicit curriculum of the educational system, are important in this context. In this perspective education is not only a benefit for the individual, but also for the society.

Whether education and access to education represents a social good depends on whether education is considered a means for creating equality and individual freedom, or as a means for socialization into existing norms and thereby a kind of suppressing mechanism (Bacchi 2005). Many pupils with indigenous background have not had positive experiences in their encounter with the national
education system, partly due to teachers’ lack of local cultural knowledge and/or language skills, and partly due to a school system which has not been adapted to the local context (Darnell and Höem 1996). Parents of today’s indigenous students have in many cases had rather negative encounters with the educational system, meeting teachers who did not speak their language and encountering an educational system that did not allow them to express their culture. This influences their attitudes and therefore their children’s attitudes towards the education system in different ways and can create ambivalence both to their ethnic identity and to the education system. This is related to whether indigenous ethnic identity represents a stigma or a resource in the encounters with the education system (Eide et al. 2007).

The hidden curriculum is a term used to describe the unwritten purposes and goals of school life that produce and maintain special hierarchies in educational institutions, and which influence the production of otherness in them. At an individual level, the hidden curriculum refers to the various social, cultural, and economical norms, demands or selection mechanisms that students have to adapt themselves to in order to cope with their studies and school life (Lynch 1989, Willis 1977). Verbal ability is one of the central (implicit) conditions for educational success. The centrality of verbal ability, however, varies culturally and will therefore influence children’s academic success in various ways. This is illustrated by Bates (1997) who points to the importance of the ability of observation and non-verbal communication in Inuit society. The values related to different kinds of knowledge and skills relevant for educational success, such as reading and writing, also have a class aspect, in combination with gender (Willis 1977, Bourdieu 1984).

Young people’s relations to and management of the school are complex and are connected to the interrelationship between values and everyday practices inside and outside school. The best basis for success in school is when there is accordance between school and home in this respect and when the pupils can use their resources and knowledge in school. Therefore, schools are confronted with considerable challenges when there are large social, cultural, ethnic and/or language differences within the student population and when these differences are regionally distributed.

How the education system produces and reproduces social inequality has been a central issue for educational and youth research and for research on social differences (Bourdieu 1984, Willis 1977, MacLeod 1995). Bourdieu (1984) discusses how the values and practices of the middle class dominate the educational system causing social groups with different values and practices (habitus) to experience disadvantages in the school system. Willis (1977) talks about a culture of resistance when he discusses how a group of working class boys remain in the working class partly because they are in opposition to the values of the middle class that dominates the schools and how gender is constructed, in particular masculinity. Skills required for success in school, such as reading and writing, are rejected by the “lads”. They do not acquire the skills in a successful way, nor do they have the resources for succeeding in school. In their negotiation for dignity, and in the process of acquiring power to define themselves, they reject the values and abilities necessary for success in school. These perspectives can be useful for understanding why some groups of young people do not succeed in the context of the school system.

2.6 HOW TO MEASURE QUALITY AND RELEVANCE OF EDUCATION?

Barnhardt and Keskitalo (2008) propose than one should use formal education at the post-secondary level as the most salient and comprehensive indicator for documenting the cumulative effect of all forms of education on the well-being of the individual and the community. They consider that completion rate can be used as an indicator of how well the education system holds students through the planned path to graduation. As such, it is an indicator of whether the system fulfils the expectations to serve as a vehicle for capacity building for the society, as well as a vehicle for adding value for the individual student.

Participation in and completion of post-secondary education can be one sign of a healthy community and can serve as an indicator of the role of education more generally, contributing to the well-being of
Arctic communities (ibid.). It could also be an indicator of successful socialisation into the national system. On the other hand, a successful educational career is not a sufficient indicator for measuring the value of education, because there might be differences between values of the society and the individual’s values. Barnhardt and Keskitalo (ibid.) say further that it is of little value to a community to have educational opportunities available locally, only to see graduates leave the community and not return, due to lack of opportunities to apply their knowledge and skills locally, or because of dissatisfaction with the quality of life in the community.

If the education system leads to brain drain in a community, it is an indication of a lack of fit between the educational services provided, and the opportunities and aspirations of the people and community being served. This reflects a general challenge for the provision of education in many areas in the Arctic region which concerns the rapid changes in the local labour market and changes in the young people’s aspirations where factors related to gender and life style are very relevant. In a number of the regions in the Arctic area there is a pattern of disproportionate out-migration of young adult women. Women’s numerical dominance in higher education is a general characteristic for the majority of countries in the Arctic region, as it is in Western Europe in general (UNESCO 2000). The reasons for migration are complex, including local and national changes in the labour market providing new opportunities for women in the service sector, particularly in central areas, differences between men and women concerning the attractiveness of the local and traditional life style, and better educational opportunities in more central areas.

A central challenge for the education system is to provide young people with qualifications which can give them access to the labour market. It is a paradox that if the aims for Education for All is achieved in the Arctic region, this might result in even more permanent out-migration of young people if the labour market does not correspond with the qualifications and aspirations of the young people. This concern is particularly relevant in the Arctic region because there might be a lack of attractive jobs and living conditions for young people in these areas.

This is also a question concerning the relationship between the interest of the individual and the interest of the community. Studies show that those oriented towards the local labour market are among the least school motivated, mostly young men, while the school motivated, the majority being young women, move to more central areas (Heggen, Båtevik and Olsen 2000). In this context, education can provide the exit ticket from the local community and an entrance to national education institutions and labour markets. Whether they move back again or not, is to a large extent related to the situation in the labour market and factors concerning social and cultural belonging (Wiborg 2003).

2.7 COMPARISON OF EDUCATION IN AREAS IN THE ARCTIC

The Arctic Human Development Report (AHDR 2004) warns against a comparison between the countries in the Arctic area concerning educational research, because there are a number of national indicators that do not necessarily correspond to the realities in these areas. AHDR points out that regional scale studies are not easily comparable and circumpolar studies are almost non-existent, with Darnell and Hoëm (1996) as an exception.

Goldstein (2004) warns against what he calls the obsession of EFA for developing learning targets that should be achieved for all across countries. Instead, Goldstein argues than one should be using resources to try and understand the dynamics of the system within each country, emphasising local context and culture. Simola (2005) draws the attention to some problematic aspects of international comparative surveys based on school performance indicators, using the Finnish results as an illustration. In the PISA5 2000 survey, one of the findings was that Finnish students were among the best in terms of reading, mathematical and scientific literacy. It has been concluded that the Finnish comprehensive school has managed to combine high quality performance with a high level of equality in educational outcome. These results are often attributed to pedagogical excellence amongst Finnish

5 PISA: Programme for International Student Assessment
teachers and high quality within Finnish teacher education. Simola, however, questions whether these performance indicators enable us to understand schooling in different countries, or whether they are just part of the process of 'international spectacle' and 'mutual accountability' (ibid.:455). Instead, Simola argues for an understanding of education where it is placed in a social, cultural, institutional and historical context. According to Simola, the Finnish culture can be said to still incorporate a meaningful element of the authoritarian, obedient and collectivist mentality. This is in a way reflected in the position of teachers; teachers enjoy a higher status in Finland than in most other liberal countries. Also, Finnish parents are clearly most satisfied with their school as compared to parents in the other Nordic countries (Nyyssyölä 2005). On the other hand, Finnish teachers appear to be pedagogically conservative and somewhat reserved in their relations with pupils and their families, and they emphasise the importance of a certain professional distance from their pupils and their domestic challenges (Simola 2005).

Another aspect of the background for this result is a well-organized and effective special needs education system in Finland developed to ensure a certain level of homogeneity in the classrooms by moving away the most educationally challenging pupils into special educational units or clinics. The share of pupils taking advantage of part-time special education increased from 15 per cent of the cohort in 1995 to 20 per cent in 2003. Another aspect is that there is a certain cultural homogeneity in the classrooms with the proportion of non-native students in Finland being only a fifth of the OECD average. Also, the Sámi population is very small as compared to that of Sweden and, in particular, Norway. In other regions of the Arctic the challenges are, however, closely linked to cultural diversity.

The case of Finland illustrates a general point concerning a strict and measurable target setting which is advocated in EFA (Education for All) programme and which Goldstein (2004), a British expert in education statistics, is sceptical towards. Instead of monitoring progress towards an essentially artificial set of targets, he argues for an emphasis on “the local context and culture, within which those with local knowledge can construct their own aims rather than rely upon common yardsticks implemented from a global perspective (Goldstein 2004:13).” Therefore, it is important to analyse the educational situation, both content and results, for the individual and the community, in a local and national context.

2.8 CHANGE IN POLITICAL IDEOLOGY?

One may argue that the political ideology related to education seems to be changing in the Nordic countries, towards less emphasis on questions of individual development, liberation and issues of inequality. Johannesson et al. (2002) discuss discursive changes in schooling in Finland, Iceland and Sweden. They argue that a neo-liberalist ideology in schooling is emerging, resulting in more market oriented practices and a practice and language related to self-evaluation, managerialism and budget reform. There is an increased focus on control and measurable objectives in school. This system of reasoning, as Johannesson et al. (ibid.) describe it, is silent about socio-economic issues and the equity goals of the 1960s-1980s. The neo-liberalist market discourse frames the debate that takes place within education. This change can be related to a more general turn in political ideology in the public sector where New Public Management with an emphasis on efficiency seems to be more prominent.

The main aims for education are also reflected in how the issues of low school achievement and drop-out from secondary school are presented. The problems and challenges related to drop-out from secondary education could be considered from different perspectives; from a technical/economic, a social and an individual perspective. From a technical/economical perspective the registration of drop-out rates is a useful tool to register young peoples' use of educational rights and their presence in the educational system. From this perspective drop-out, permanently or temporarily, is considered a problem because the pupils/students use more than the estimated time to complete their education, or do not complete at all, using more economic and personnel resources than those who complete their education within the estimated time.
Drop-out also represents an organisational challenge related to following up the students. In a social perspective it is desirable that young people achieve qualifications and knowledge which enable them to participate in society and in the labour market. From this perspective it is important that the educational system contributes to reducing social inequality and supports young people in such a way that they avoid coming into marginal positions in society. From an individual perspective drop-out can be understood in two different ways. If individual choices are interpreted as an element in the young people’s life projects in a social cultural context, drop-out could be an understandable solution. However, if the focus is on the individual and individual school achievement within a certain school system, then drop-out and achievement will be linked closer to individual characteristics. This can also be linked to the technical/economic perspective where the aim is to reduce drop-out. A central question is how the problem should be addressed. Is the problem of high drop-out rates due to individuals who need help to adapt to the education system, or is the problem related to the education system and processes within it which causes drop-out?

One may also claim that the increased focus on international assessment studies such as PISA, TIMSS⁶, etc. can be understood within such a perspective. Globalisation with regard to competition for competence and the importance of education in a competitive global environment changes the way we view and value education. Such changes will also influence development of education provision in Arctic regions, in particular in relation to which issues and objectives are valued. At the same time as there seems, at least in some areas, to be a growing awareness of the importance of locally developed and relevant curricula, this may be made difficult because of increased focus on students performing well at international tests which do not take into account the students’ local knowledge and their skills and values based in their local environment and culture.

⁶ TIMSS: Trends in International Mathematics and Science Study
3 ALASKA

3.1 ABOUT ALASKA

Alaska is the only state in the USA which has landmass north of the Arctic Circle and is therefore included in this study. The population in Alaska was estimated at approx. 660,000 in 2004, which is an increase of nearly 5 per cent compared to year 2000. Alaska Natives were estimated at nearly 104,000 (15.8 per cent of total population) in the same year, which is an increase of 5.2 per cent compared to year 2000. The capital, Anchorage, has approx. 277,000 inhabitants, a population which constitutes 43 per cent of the state total.

The map below shows the state of Alaska and which parts are north of the Arctic Circle. Alaska borders on one of the Canadian arctic territories, Yukon.

http://www.worldatlas.com/webimage/countrys/namerica/usstates/ak.htm

With regard to Alaska Natives the state’s official website discusses the estimates mentioned above:

Information collected on Alaska Native groups by the federal census is only partially useful since all identification of race and tribe is self identification. There is substantial non-reporting of tribal information, and intermarriage among persons of different Native and tribal backgrounds and between Natives and non-Natives is common.

Because of changes in 2000 in the way people report their background, it is also difficult to measure changes in the Alaska Natives population over time, i.e. before and after 2000. A key element in the preservation of Native cultures is the effort to preserve Native Languages. The map on the next page shows the different native languages and the main area where they are spoken.

7 Source of information: State of Alaska homepage: www.state.ak.us
3.2 EDUCATION PROVISION IN ALASKA

The Commissioner of Education and Early Development heads the Alaskan State Department of Education and Early Development. The department is responsible for general supervision over the public schools in Alaska, provides research and consultative services to school districts, establishes standards and assessments, administers grants and endowments, and provides educational opportunities for students in special situations.

Alaska’s 501 public schools (2004 figures) are organized within 53 school districts. Locally elected school boards head each of these districts, working within broad state guidelines to determine hiring procedures, curriculum, and policies for their districts. There are 34 city and borough school districts and 19 Regional Educational Attendance Areas (REAA). REAAs serve students living in towns and villages in politically unorganized areas of rural Alaska.

With regard to regulations concerning how the school system is built up, school starting age etc., the Alaska statutes from 2007 define the following:

- An elementary school consists of grades kindergarten through grade eight or any appropriate combination of grades within this range.
- A secondary school consists of grades seven through 12 or any appropriate combination of grades within this range. The establishment of one or two grades beyond the 12th grade is optional with the governing body of the school district.
- Grades seven through eight, nine, and ten or any appropriate combination of grades within this range may be organized as a junior high school.
- A child who is six years of age on or before September 1 following the beginning of the school year, and who is under the age of 20 and has not completed the 12th grade, is of school age.
- A child who is five years of age on or before September 1 following the beginning of the school year, and who is under school age, may enter a public school kindergarten.

8 Source of information: http://www.eed.state.ak.us
Alaska schools vary greatly in size. High schools in Anchorage, the state’s capital, can have more than 2,000 students while many schools in rural areas are small, some with 20 or fewer students at a variety of grade levels. These schools may be located many miles from population centres and services, and may be accessible only by aircraft or boat. In remote villages, schools often serve as centres of community activity. In the school year 2006-2007 the pupil to teacher ratio (PTR) was 16.4 in public schools in the state as a whole.

In 2004-2005 (First Alaskans Institute 2006) the total number of students enrolled in public schools was nearly 133,000, a minor reduction from the year before (minus 0.7 per cent). Alaska Native enrolment, however, had a small increase (plus 0.4 per cent) and comprised nearly 32,300 students in 2004-2005, which is 24.3 per cent of the total student population. This shows that Alaska Natives have a higher proportion of the student population than of the total population, i.e. a younger population as compared to the state’s population as a whole.

13.6 of the total student population were classified as having disabilities; the corresponding figure for Alaska Natives was 31.1 per cent. There is no definition of what these figures contain, but judging from the relatively high percentages, one may assume that the figures represent students that, for one reason or another, are in need of specifically adapted education, i.e. special needs education.

The state-wide attendance rate for all students was 91.5 per cent in 2004-2005. With regard to the teaching staff, Alaska Natives represented only 4.6 per cent of the total educators (superintendents, principals and teachers), while their part of the student population was 24.3 per cent.

With regard to educator turnover the average was 17.8 per cent in Alaska from 2003-2004 to 2004-2005. Some Alaska Natives regions, however, experienced much higher turnover rates. The turnover of principals was for example 63.6 per cent in NANA and 58.3 per cent in Bristol Bay, while the teacher turnover was 41.6 per cent in Bering Straits. NANA, Bristol Bay and Bering Straits are three districts in the state of Alaska.

Up to 60 so-called charter schools (private schools) can operate in Alaska under the jurisdiction of local school districts. Charter schools are exempt from certain state laws and policies, but their charters must be approved by both local school boards and the State Board of Education and Early Development. About 5,000 students attended private or denominational schools in Alaska in 2006-2007. There was no information available regarding the percentages of AI/AN students in charter schools as compared to the rest of the population.

Alaskan students come from a variety of cultures. In urban areas you will find students from a number of different cultures while in remote villages, students and residents may be predominantly American Indian or Alaska Native - Yup’ik or Inupiaq Eskimo, Aleut, Athabaskan, Tlingit, Haida, or Tsimshian. According to the education government in Alaska, cultural values and traditions are an important part of school programs.

With regard to higher education The University of Alaska⁹ has three urban university campuses in Anchorage, Fairbanks and Juneau, and a dozen community campuses, from Ketchikan in Southeast Alaska, to Kotzebue in the state’s far north. The three urban campuses represent three separately accredited universities. The total university system enrols over 32,000 students studying among the 430 programs offered, everything from certificates and associate degree programs to bachelor's, master's and doctorate degrees. The map below shows the system of urban and community campuses. The three colours represent the three different universities and their community campuses; green for University of Alaska Anchorage, blue for the University of Alaska Fairbanks and purple for University of Alaska Southeast (Juneau).

⁹ Source of information: [www.alaska.edu](http://www.alaska.edu)
Judging from their websites the universities provide a wide range of courses for both qualifying teachers and post-graduate courses for already qualified teachers. These are given both as lecture courses on campus and as distance education courses. A search on the university’s website for distance education courses within the area of Education for autumn 2008, gave a result of 79 different courses, and amongst them courses in Alaska Native Education.

3.3 THE QUALITY AND OUTCOME OF EDUCATION PROVISION IN ALASKA

3.3.1 The National Indian Education Study 2007
The National Indian Education Study (NIES) (Institute of Education Sciences 2008) provides data on the performance of American Indian (AI) and Alaska Native (AN) students at grades 4 and 8 in reading and maths. The tests used are so-called NAEP (National Assessment of Educational Progress) tests. NAEP is a congressionally mandated project of the United States Department of Education. The studies of AI/AN students were conducted in 2005 and 2007, and the reports provide data at state level; 11 states with relatively large proportions of AI/AN students were selected for specific reporting in NIES 2007.

When compared with AI/AN students in other states, Alaskan AI/AN students score lower in reading at Grade 4 and Grade 8. The nation average (all states, not just the selected one) was 204 for Grade 4, while the Alaskan score was 188. For Grade 8 the score for Alaska was 236, while the nation score was 247. Only Arizona had a lower average score for Grade 4, and only New Mexico and Arizona had a lower score for Grade 8. ‘Other states’, i.e. the ones which were not selected for specific reporting because of high percentages of AI/AN students, had an average score of 211 for Grade 4 and 253 for Grade 8, i.e. above the nation average.

In mathematics the Alaskan results were somewhat better, even though they were still below the national average. In Grade 4 the Alaskan AI/AN average score was 218, compared to the national average of 228, while in Grade 8 the Alaskan result was 260 compared to the national average of 265. ‘Other states’ (see explanation above) scored 235 in Grade 4 and 270 in Grade 8.

3.3.2 Alaska Natives Education indicators
First Alaskans Institute (2006) publishes comprehensive and detailed documentation of Alaska Natives education indicators. The demographic indicators are presented above (see section 3.2), while this section will present indicators regarding achievement, graduation, drop-out and continuing education.

The central tool for measuring school performance is the so-called Adequate Yearly Progress (AYP). To calculate AYP, standardised test results, graduation rates and attendance rates are used. Based on
the AYP the schools are expected to develop and implement a plan for improvement. Schools not meeting AYP goals are placed at different levels depending on the number of times they fail; schools which have failed once is a Level 1 school, schools which have failed twice is a Level 2 school etc. In the school year 2003-2004, 203 of the 501 Alaskan schools did not meet the AYP targets and was therefore defined to be below standard.

With regard to high school examinations, the education indicators show that 42.5 of Alaska Natives 10th grade students met the standards in reading as compared to 77.1 per cent of all other students combined. The Alaska natives results in writing was 70.3 per cent, compared to 88.2 of other students, and in maths 52.9 compared to 77.5 for other students. The students are required to pass these tests to get a diploma, and if the fail they can re-test the next year. There is no age limitation or limit of number of times they can re-test.

With regard to graduation rates the overall state-wide rate was 61.6 per cent. Alaska Native students graduated at a rate of 43.4 per cent compared to 67.3 per cent for all other ethnicities combined. This situation has been consistent over time. With regard to drop-out the combined rate for students enrolled in grades 7-12 was 6.0 per cent. Alaska Native students had a higher drop-out rate as compared to all other students as a group – 8.2 per cent compared to 5.4 per cent. For a more detailed discussion of drop-out as a phenomenon confer section 3.3.4 below.

3.3.3 Alaska Native Education Study

First Alaskans Institute (2001) has also provided a very comprehensive study on Alaska Natives values and opinions regarding education in Alaska. The study both includes a review of existing research literature and in-depth studies based on interviews, presented as four separate studies. The studies which are presented in the report are:

- Alaska Native and American Indian Education: A Review of the Literature
- Perceptions of Alaska Native Educational and Cultural Experts
- Alaska Native Household Education Survey
- Issues in Alaska Native Education: Focus Group Research

Time prevents us from giving a very detailed review of the report, but since we think the issues presented can be of more general relevance to all the regions in the Arctic, we include a summary of the findings.

The report claims that educational statistics paint a rather dismal picture of the academic achievement of AI/AN students (confer sections 3.3.1 and 3.3.2 above), and that to understand this one needs to take into account the barriers that research shows that these students meet. The barriers include (ibid.:2):

- Language and culture differences among students, parents, and school staff.
- Ignorance of Native culture among teachers and other school staff.
- Curriculum, learning materials and teaching styles that do not relate to Native cultural experiences.
- Standardized tests that do not take into account language and culture differences.
- Differences in learning styles between Native and non-Native students.
- Lack of educational role models and parents' attitude toward education.
- Problems at home, including alcoholism, neglect and abuse.
- Other factors that affect students' performance, such as poverty, indifference, or ambivalence toward education, boredom, and low self-esteem.

The role of family and community is discussed in more detail in the report. The household survey (see list of studies above) shows that personal and family history was the primary reason given for the high drop-out rate of Alaska Natives (ibid.:3). When grouped by subject, 61 per cent of the respondents
said substance abuse, pregnancy, low self-esteem, lack of motivation, peer pressure, and other personal issues led Native students to leave high school before graduation. 38 per cent blamed family background. Respondents cited that many Native families do not encourage schooling and youngsters lack role models in their homes. Violence in the home and family responsibilities were also given as reasons to stop attending school. The school districts that do succeed, however, are the ones that manage to build parental and community commitments to the school. To manage this schools and communities must establish a shared leadership so that joint decision-making can take place; parents and the community need to experience ownership of the school’s development.

36 per cent of the respondents cited cultural reasons for leaving, including the cultural divide between Native students and non-Native teachers, while only 19 per cent stated academic reasons for dropping out of school.

With regard to language and culture issues the report claims that to achieve academic success for Native students their culture and language needs to be included and promoted in the classrooms. However, the situation is that classroom education in general is inconsistent with Native culture and rural lifestyle, and Alaska Native culture and language studies are only to a varying degree included in school curricula across the state. Also, the way culture and language is integrated into the curricula is of importance (ibid.:4):

> Experts agree that Native knowledge should not be limited to language development, history, and traditions. The inclusion of Native knowledge in the teaching of mathematics and science are equally important.

More than 40 per cent of the Alaska Natives claim that the Alaska educational system favours non-Native students. With regard to the situation for Alaska Natives in rural and urban settings findings from the study verifies a strong perception of prejudice in urban areas where the Natives are more likely to be in minority. In line with findings cited below (see section 3.3.4), the study shows that the transition from rural to urban Alaska is found particularly difficult for children and youth in school, and that racism is often a major problem in urban schools. Further findings regarding the urban – rural situation are (ibid.:5):

> Not only is the urban/rural divide geographic, economic, and cultural, it is also academic. Rural Alaskans do not believe their schools can compete with larger communities to attract good teachers. The high turnover of teachers, counsellors, and administrators is also a problem in rural Alaska. Residents complain of poor teacher quality as well as teacher ignorance of Native and rural life. They say their students are not academically prepared for post-secondary education or the world of work.

In addition to problems with regard to recruiting and keeping teachers, rural schools generally have a more limited selection of courses than urban schools. Also, they lack counsellors, opportunities for music, libraries and other amenities that larger schools offer. The conclusion is that to improve the educational provision in rural areas more educational opportunities need to be provided for students in these areas.

With regard to participation in higher education, the study refers to research that show that AI/AN are the least likely to attend and complete higher education as compared to all other minority groups in the USA. Alaska ranks as 48th among the 50 states with regard to the number of 19 year-old high school graduates who enrolled in college. With regard to barriers preventing young Alaskans to get into higher education, the study cites the following (ibid.:33):

> Poor academic preparation tops the list of barriers to success for Alaska Natives in post-secondary education. McDowell Group tribal college research (1999) identifies several barriers, including the high cost of college, poor academic preparation, homesickness,
In 2000, 224 Alaska Natives graduated from the University of Alaska system. 73 per cent of these were women and only 27 per cent were male. More of these graduated from the rural campuses (see section 3.2 above) than from the large urban campuses.

Included in the mandate for the study was that the research group should define areas for further research. We include the whole list they compiled, since we think that this may be of use for decisions about common educational research in the Arctic as part of the initiative to focus on Education For All in this region (ibid.:36):

> It is apparent to the McDowell Group that current research is needed, at both the national and local level, especially in the following areas:

- Research on the effectiveness of Alaska Native organizations (e.g., tribal councils, Native corporations, nonprofits) in improving education….
- A study of teacher turnover in Alaska…
- Current research of the educational needs of Alaska Natives living in urban areas….
- The relationship between language, culture, and learning.
- Special education placement. …
- The effectiveness and appropriateness of technology-based programs in Native education.
- Longitudinal studies, from Head Start to college. …
- More studies on the effectiveness of pre-school programs in Native education, such as Head Start.
- A nationwide comprehensive study of Alaska Native and American Indian Education. …

3.3.4 Student drop-out – a complex phenomenon

Regarding student drop-out, Maria Villegas (2007) discusses student drop-out amongst Alaskan 7th to 12th grade students. She shows that the student drop-out rate declined from 9.4 to 8.4 per cent from 2001 to 2006. However, because of increasing enrolment the actual number of drop-outs increased somewhat. She argues that it is important not only to consider the percentages but also numbers since these are individuals that may find themselves in a difficult situation because of lack of qualifications to get into the labour market or into further education.

Villegas also argues that it is important to have a look at the drop-out percentages of Alaska Natives (AN) and American Indians (AI) in relation to the amount they constitute of the total student population. She shows that AN/AI students made up nearly 37 per cent of the drop-out group, while they only made up about 25 per cent of the total student population, which means that they are highly overrepresented in the drop-out group.

With regard to the urban – rural dimension she shows that urban students seem to be dropping out at a higher rate than rural students, and this is a situation that has been consistent over a number of years. She refers that this is consistent with other research that claims that rural schools are better at supporting students through to graduation. Also she refers results that show that Alaska natives, who out-migrate to urban centres to quite a large extent, find it difficult to adjust to large high schools, and she also suggests that they face racism which makes their transition to urban areas even more difficult to cope with.

Villegas lists a number of key factors which research has found that AN/AI students define as reasons for leaving school (ibid.:8):

- Teachers do not care about students.
- Teachers do not provide enough assistance with student work.
• Students have disagreements with teachers.
• School is not seen as important to what students want to do in life.
• School is not seen as important to students as Native Americans – absence of culturally relevant curriculum.
• Problems at home.
• Lack of parental encouragement.
• Difficulty with classes.
• Difficulty with reading.
• Work needs at home or job.
• Distance from school.
• Students feel unwanted at school.
• Pregnancy.

She argues that depending on the lens the researchers use one may focus on individual factors (factors inherent to the students), push-out factors (lack of adaptation at school, hostility in school etc.) or environmental factors (employment opportunities locally etc.), and she argues that addressing drop-out as an issue requires a multi-faceted understanding of the phenomenon amongst policy makers and local communities to support students to stay in school.

Based on such a diversification of this phenomenon she sorts the different factors into three groups:

- Factors contributing to student ‘drop-out’:
  - Family transience or other family issues that affect students’ experience in school.
  - Student-specific health issues.
  - Students view school as not contributing to their current or future success.
- Factors contributing to student ‘push-out’:
  - Instruction that is not relevant to students’ home cultures or lived experiences.
  - Lack of caring relationships between students and school staff and/or an absence of a culture of caring within the school.
  - Culture clash between school staff and students.
- Factors contributing to student ‘lure out’:
  - Lack of connection between students’ school and career plans.
  - Students believe they have greater opportunities outside of school.
  - Stronger peer networks around non-school opportunities than around schooling options.

At the end of her article Villegas (ibid.:17) comes up with the following conclusions and recommendations concerning student drop-out:

**Dropping out is a process.** Research on this issue has consistently pointed out that students’ decision to leave school is a gradual process that can start as early as middle school. In most cases, it is not a single event that had no prior indication or warning. Thus, it is essential that schools, communities, and state officials partner to monitor absenteeism and key transition points to identify students at-risk of leaving school.

- **Recommendation 1:** Provide data and tracking mechanisms for communities, schools, districts, and the state to monitor student absenteeism in a systematic way.
- **Recommendation 2:** Disaggregate state, district, and school data by grade level so that school staff and communities can monitor key transition points between elementary and middle/junior high and between middle/junior high and high school. Consider supporting efforts that specifically target support to 9th grade.

**There is a need to determine how high is too high.** There are so many different ways to measure the drop-out phenomenon, and new methods are being developed each year. While these new methods offer a more refined way of capturing aspects of the phenomenon, the
methods do not determine the community or school goals around how many student leavers a community or region can reasonably afford—economically, socially, and culturally. It is essential that local communities work together with school, district, and state education officials to set community goals around student graduation and attrition. In this way, the community goals can better drive research, policy, and practice instead of waiting for new statistics and rates that may or may not inspire action around this critical issue. Setting goals is a first important step to identifying effective strategies to meet those goals and to learning more about where students go when they do leave.

- Recommendation 3: Set community, regional, and state-wide goals for student graduation and attrition.
- Recommendation 4: Develop the capacity of community and regional organizations to measure and report on student drop-out using alternative measures to ensure state accountability for providing accurate information and interventions.
- Recommendation 5: Develop a process for sharing promising strategies across communities and for systematic evaluation and reporting of funded programs.
- Recommendation 6: Establish a way to track where students go when they leave school.

3.3.5 What’s different about teaching in rural Alaska?
As mentioned above, rural school in Alaska are regarded as more successful than urban schools with regard to providing an adapted educational provision and thereby preventing school drop-out. A study of rural teachers in Alaska referred on the state’s website, identified some central characteristics for success. Since most of the schools which can be found in arctic areas both in Alaska and in the rest of the Arctic are rural schools, we include the whole list of factors that the study claims lead to success:

- **Skills to assist all students in meeting high standards** - Effective rural teachers use a variety of techniques to assure that no child is left behind.
- **Intellectual breadth and curiosity** - Most village teachers must teach subjects outside their fields.
- **Multiple talents and practical skills** - Rural communities need teachers who can do more than teach school but can also lead or coordinate extracurricular activities and enrich the school environment.
- **Political skills** - In small communities, teachers must be astute politicians and be wary of community politics.
- **Interpersonal savvy** - In Alaska Native villages, teachers must decipher the unwritten rules of cross-cultural communication. They will be judged on their personal as well as professional qualities.
- **High academic expectations and varied teaching strategies** - Effective rural teachers have a strong academic orientation and do not use cultural differences to excuse low achievement. They also have many teaching strategies to use in different situations.
- **Entrepreneurial spirit** - Effective village teachers form educational partnerships with the community, and design education that fits particular places.

3.4 ALASKA - SUMMARY

Alaska is a separate jurisdiction within the USA, and there is a wide selection of both electronic sources of information and research papers regarding the education system in Alaska. The above sections only provide a summary and presentation of a limited sample of available sources. A lot of the sources focus on the situation of Alaskan American Indian (AI) and Alaska Natives (AN). With regard to measures such as achievement at national tests, drop-out rates, high school graduation rates, and attendance and completion of higher education courses, AI/AN students generally come out in a

10 Source of information: www.eed.state.ak.us
worse position compared to the non-AI/AN students. The reasons for this are complex, comprising elements such as a low percentage of educators with indigenous background, high turnover of educators particularly in rural areas, AI/AN students facing prejudices in urban schools, classrooms that in general are inconsistent with Native culture and rural lifestyle, Native language and culture studies only to a varying degree included in the provision the schools offer, lack of educational support systems in rural areas, lack of relevant learning materials etc. However, the fact that there is such a variety of documentation raising these issues suggest that there is a high level of awareness and a lot of effort put into providing information and doing research into these issues. Availability of relevant data and awareness of the situation are important prerequisites for addressing the issues both politically and within the education system.
4 CANADA

4.1 CANADA AND ITS EDUCATION SYSTEM

Canada has 13 jurisdictions – 10 provinces and 3 territories. There is no federal department of education and no integrated national system of education - education is the responsibility of each province and territory. Territorial education departments are headed by elected ministers, and the thirteen Canadian education ministers are responsible for overseeing and regulating education in their respective jurisdictions. Principals are responsible for managing schools while a superintendent supervises groups of schools which are geographically linked.

Even though there are 13 separate education systems, there is, however, a common body for the ministers of education - the Council of Ministers of Education, Canada (CMEC). According to the organisation’s website (www.cmec.ca) CMEC is:

An intergovernmental body founded in 1967 by ministers of education to serve as:
• a forum to discuss policy issues
• a mechanism through which to undertake activities, projects, and initiatives in areas of mutual interest
• a means by which to consult and cooperate with national education organizations and the federal government
• an instrument to represent the education interests of the provinces and territories internationally

CMEC provides leadership in education at the pan-Canadian and international levels and contributes to the fulfilment of the constitutional responsibility for education conferred on provinces and territories.

CMEC also carries out pan-Canadian assessment programmes, some of which will be referred to below. All 13 provinces and territories are members of the CMEC. CMEC has developed a common framework for the development of educational provision in the provinces and territories. The framework is called Learn Canada 2020 and aims at enhancing Canada’s education systems, learning opportunities, and overall education outcomes. The vision of Learn Canada 2020 is: Quality Lifelong Learning Opportunities for All Canadians.

Learn Canada 2020 contains four pillars of lifelong learning from early childhood to adulthood. These are:

• Early Childhood Learning and Development. All children should have access to high quality early childhood education that ensures they arrive at school ready to learn.
• Elementary to High School Systems. All children in our elementary to high school systems deserve teaching and learning opportunities that are inclusive and that provide them with world-class skills in literacy, numeracy, and science.
• Postsecondary Education. Canada must increase the number of students pursuing postsecondary education by increasing the quality and accessibility of postsecondary education.
• Adult Learning and Skills Development. Canada must develop an accessible, diversified, and integrated system of adult learning and skills development that delivers training when Canadians need it.

Source of information: www.cmec.ca (The official website of Canadian Council of Ministers)
Within these pillars eight specific activity areas and accompanying objectives have been identified:

- **Literacy**: Raise the literacy levels of Canadians.
- **Aboriginal Education**: Eliminate the gap in academic achievement and graduation rates between Aboriginal and non-Aboriginal students.
- **Postsecondary Capacity**: Enhance and stabilize the long-term capacity of postsecondary systems to meet the training and learning needs of all Canadians seeking higher education learning opportunities.
- **Education for Sustainable Development**: Raise students’ awareness and encourage them to become actively engaged in working for a sustainable society.
- **International and National Representation**: Speak effectively and consistently for education and learning in Canada in both pan-Canadian and international settings.
- **Official Languages**: Promote and implement support programs for minority-language education and second-language programs that are among the most comprehensive in the world.
- **Learning Assessment Programs and Performance Indicators**: Support the implementation of national and international learning assessment programs and performance indicators for education systems.
- **Education Data and Research Strategy**: Create comprehensive, long-term strategies to collect, analyze, and disseminate nationally and internationally comparable data and research.

To meet the challenges defined in the list above of raising academic achievement and rates of graduation amongst Aboriginal students CMEC states that it is a defined objective to:

... encourage the federal government to meet its constitutional obligation and work with provinces and territories to provide equality of opportunity for Aboriginal peoples.
The map above\textsuperscript{12} shows the 13 different provinces and territories. Three of these, the three territories - Northwest Territories, Nunavut and Yukon - have land which reaches north of the Arctic Circle and is therefore included as objects of study for this report.

In the sections following below, we will describe in more detail the three Canadian arctic territories, its education systems and research and statistics concerning education. This will be done for each territory respectively. Before we do that, however, we will briefly describe some common trends and challenges for the northern areas in Canada.

All the northern territorial education systems are unique. The realities of education across northern Canada vary considerably due to geographical and cultural diversity. However, there are some common traits:

- The availability of teachers has been a major challenge in northern Canada, especially teachers with knowledge about local cultures and languages. Most teachers go north with no indigenous language training and with very little understanding of the history and ecology of the community they come to.
- As stated above, teachers are often attracted from southern universities. However, the three northern colleges have over the past twenty years invested considerable resources in developing northern teachers.
- In many remote and rural communities, the first language of instruction is not English.
- In keeping with Canada’s bilingualism, French language instruction is available across the North, in particular in urban centres.
- A newly emerging concept in northern Canada is parent advisory councils. The involvement of parents, in particular indigenous parents, is a growing movement aimed towards increasing the recruitment and retention of indigenous students and improving schooling in northern Canada where the majority of students in many communities are indigenous.
- There is a growing trend in northern Canada to appreciate the differences of language, place and the tensions experienced due to standardized curriculum. One expression of this is the development of student-centred classrooms and the revitalization of land-based education.
- Indigenous people in Canada have previously largely experienced schools as tools for assimilation and acculturation.
- There is a development of indigenous curricula in the school system. Primary schools have offered indigenous students curricula that strengthen their knowledge about their culture. The extent to which the curriculum is used in a school depends on the desires and needs of the community.
- The culture-based curriculum is taught by a teaching assistant who is also a community member. Often, these people have received degrees from one of the northern based colleges or from a southern teaching university. Teachers who present these courses in their native languages are at times challenged by combined classes with students at varying levels of comprehension of their own language, or by students who speak different languages.
- There is no Canadian official native language policy. This is an issue for the local and regional authorities who often lack adequate resources.
- The schools in the three territories follow the Western and Northern Canadian Protocol Curriculum Framework.

\textsuperscript{12} Source of information: www.worldatlas.com/webimage/countrys/america/lgcolor/cacolor.htm
4.2 **NORTHWEST TERRITORIES**

4.2.1 **About Northwest Territories (NWT)**

The Northwest Territories has a population of 42,637 (figure from 2007) of which 50 per cent is of Aboriginal origin. Most of the non-Aboriginal people live in the larger communities and the capital, Yellowknife, has a population of approx. 18,500 of which 77 per cent of the residents are non-Aboriginal. In smaller communities, however, Dene, Métis and Inuit constitute 84 per cent of the population. The territory recognises 11 official languages – Chipeweyan, Cree, Dogrib, English, French, Gwich’in, Inuinnaqtun, Inuktut, Inuvialuktun, North Slavey and South Slavey. English is the most common spoken language in the Northwest Territories with 76 per cent of the population reporting English as their first language. Nearly half of the Aboriginal population speak an Aboriginal language. About 21 per cent of the Inuits living in the territory speak an Inuit language. Some of the Aboriginal languages are in danger of disappearing.

The Aboriginal population is very young, with children and youth under the age of 25 comprising more that 50 per cent of the total population.

4.2.2 **Education provision in the Northwest Territories**

Schooling is mandatory between the ages of 6 and 15, comprising grades 1-9. NWT has 33 communities and for each of them there is a District Education Authority (DEA) which governs the schools in the community. In total there are 48 public schools and 2 private schools, and almost half of these schools deliver programs for kindergarten through senior secondary grades.

In secondary education there are two stages – junior secondary, which is compulsory and comprises the grades 7-9, and senior secondary, including grades 10-12. Students can be allowed to use more than the six years to complete, if necessary. With regard to secondary curriculum, the schools use curricula developed for the education provision in Alberta, with the exception of some subjects, including Aboriginal languages and Northern Studies. Northern Studies is a compulsory, core subject with specific local relevance. The subject is placed in grade 10 and is described in the following way (CMEC1 2004-2005:18):

*The Northern Studies Curriculum is designed to prepare secondary school students for citizenship in a rapidly changing society in which recognition of individual worth, pride and respect for our northern context, and recognition of cultural, political, and economic differences are matters of high priority... Students from all cultural and linguistic backgrounds will benefit from this course since the past experiences of Northern people, their lives today, and their hopes and aspirations for the future all reflect, contribute to, and are an integral part of the past, present, and future of our Canadian society... The course has three modules:*

- **Module A: Our History and Our Heritage** deals with northern history, cultures, perspectives and contact with European society.
- **Module B: Northern Issues** looks at issues of concern in the North while allowing students to explore the society they live in.
- **Module C. Land Claims** allows students to investigate the processes of land claims and Aboriginal self-government.

Another subject which allows for local adaptation is Community Service.

Each school or school board defines the school year, based on local needs and practices. There is also some freedom to organise the school year in blocks or semesters to cater for seasonal trends and cultural events. The courses in secondary education are differentiated to cater for different student ability; as an example English has three different levels.

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13 Source of information: [www.gov.nt.ca](http://www.gov.nt.ca)
There is a need to expand opportunities for secondary and post-secondary education in NWT in the years to come, in particular outside Yellowknife. With regard to post-secondary education, Aurora College has campuses in Yellowknife, Fort Smith and Inuvik. The campuses in Yellowknife and Fort Smith also have research centres. In addition to the three campuses there are 23 community learning centres (CLC). Most CLCs are staffed with an adult educator who is responsible for the general operation of the learning centre, as well as instructing the courses delivered at the learning centres. The CLCs are an integral part of Aurora College as they often provide the first contact between students and the College. Students may complete their high school upgrading at a learning centre in preparation for enrolling in a full-time program at one of the campuses. Also, the learning centres deliver many general interest and employment-related programs and courses. Aurora College has a School of Education which delivers 5 different programs, including a Bachelor of Education, and a one-year course for Aboriginal Language and Cultural Instructors.

4.2.3 The quality and outcome of education provision in the Northwest Territories

The NWT Government’s Department of Education, Culture and Employment issued a report, *Towards Excellence*, on Education in the NWT in 2002 (there is a later one, but it was unavailable on the website). The report stated the following trends and challenges:

- With regard to language retention, there are challenges with regard to maintaining Aboriginal languages. Culture based schooling is a critical factor in the support of culturally enriched language programs.
- Because of larger numbers expected in particular in secondary education, there might be need for new and larger schools. Lately the focus has been on renovating existing facilities.
- The increase in secondary school enrolment is mainly due to implementation of grade extensions in smaller communities.
- Residents in the 18 small communities do not have access to long-term, stable education provision for mature students who wish to complete Grade 12 (senior secondary education). However, online learning helps in providing better access to secondary courses for all communities.
- The NWT has a higher proportion of newly educated teachers compared to the rest of Canada. The smaller communities have more than 50 per cent of teachers with less than 5 years of teaching experience. Teachers with some experience (2 to 9 years) are most likely to leave the NWT for work opportunities in the southern parts of Canada, resulting in a high turnover in the small communities.
- Multi-grade classrooms and range of student abilities within these classrooms pose particular challenges to teachers in small schools, and since these are often the ones with least experience this is a matter of concern. Quite often this is compounded by a sense of professional isolation, and for non-Aboriginal teachers it also means quite often that their work is far away from their family.
- In 2002 Aboriginals formed 16 per cent of the teaching staff, and it is recognised as a challenge to increase the number of Aboriginal teachers in all communities, but particularly at secondary levels. Aurora College has a critical role in this development process.
- The average pupil-teacher ratio was 16.8 in 2002, with an aim to lower it to 16.0 in the school year 2003-2004.
- The average yearly cost of education for a student in NWT was $10,200 in 2001; this is approx. 50 per cent higher than the Canadian average, mainly due to a relatively small student population in many schools. Only Nunavut and Yukon had a higher average.
- 64 per cent of the overall population aged 16-19 years participated in high school programs in 2001; in Yellowknife the figure was approx. 70 per cent while in the small communities the participation rate increased from 45 per cent in 1997 to 58 per cent in 2000. The aim is to reach 80 per cent.

14 Source of information: www.auroracollege.nt.ca
Inclusive schooling is mandatory in the NWT school system. However, one out of four in need of additional support did not receive such support in 2000. The conclusion is that there is a great need for providing support for teachers so that they can meet the diversity of student needs.

Students with behavioural difficulties take up a lot of time and resources in schools.

Students in the NWT need to acquire 100 credits to graduate from Grade 12 in secondary school. This means that they need to acquire between 30 and 35 credits per year. However, many students do not manage to do so, and students who attain less than 20 credits per year are viewed as being at risk of leaving school before they graduate. In 2000 about half of the full time students achieved 20 or more credits per year. By 2001, the expected year of graduation for a group of 100 students born in 1982, only 14 had graduated and 26 were still in secondary education.

The Council of Ministers of Education Canada (CMEC) initiated an assessment program in 1989 called School Achievement Indicators Program (SAIP). SAIP is a cyclical program of pan-Canadian assessments of students aged 13 and 16 in the following areas: mathematics, reading, writing and science.

The conclusion from the 2000 assessment was that in general NWT students do not meet public expectations for science and maths, and that their achievement in these areas is considerably below students of the same age in other parts of Canada.

The 2001 mathematics assessment show significant differences between the NWT 13 year-olds and Canadian students overall in both mathematics content and problem solving. The same is the case for 16 year-olds. 40.5 per cent of the NWT students (13 year-olds) met level 2 (acceptable standard) in content, and only 32.9 in problem solving. The overall Canadian results were 64.4 per cent for content and 67.6 for problem solving. For NWT 16 year-olds the figures were 35.9 (level 3, acceptable standard) in content and 20 per cent in problem solving, while the overall Canadian results were 49.7 per cent and 47.1 per cent respectively.

The 2002 SAIP in writing shows that 57.7 per cent of the 13 year-old students in NWT met level 2 (the acceptable standard), compared to 82.4 in the country as a whole. However, the differences are considerably less than in 1998. The same is the case for 16 year-olds, but the NWT students still do not perform at the same level as the average. 43 per cent met level 3 (acceptable standard) in NWT, compared to 57.7 in Canada as a whole.

The 2004 SAIP in science shows that 48.7 per cent of 13 year-olds in NWT reached level 2, which was set as the acceptable standard, compared to 71 per cent in Canada as a whole. The 16 year-olds in are expected to perform at level 3; 49.1 per cent of the students in NWT did so in 2004, compared to 64 per cent in Canada overall.

4.3 NUNAVUT TERRITORY

4.3.1 About Nunavut territory
Nunavut is a young territory; it was created on April 1st 1999 as a result of the Nunavut Land Claim Agreement. Previously Nunavut was a part of the Northwest Territories. With huge distances and one person per 70 km², the creation of Nunavut has called for innovative approaches to the delivery of services and government programs.

Nunavut has a population of approx. 29,000 of which 85 per cent are of Inuit origin. With a median age of 22.1 years Nunavut’s population is the youngest in Canada. The capital is Iqaluit, with a population reaching nearly 6,500. The territory has a total of 26 communities, the northernmost being Grise Fiord with a population of approx 160 and the smallest one being Bathurst with only 25 inhabitants. Nunavut comprises one fifth of Canada’s land mass, including 7 of its largest islands. The territory has two thirds of the country’s coastline. The cost of living in Nunavut is from 1.6 up to 3 times compared with southern Canada, while the household income is about two thirds of the average

15 Source of information: www.gov.nu.ca
household income in Canada as a whole. The high cost of living is due to the physical isolation; many of the communities are not accessible by road or rail, which means that everything from people to fuel and food needs to be transported by air of sealift.

Nunavut has four official languages – Inuktitut, Inuinnaqtun, English and French.

In line with the Nunavut Land Claim Agreement the workforce should be representative of the population across all levels of government, which means that Inuit are expected to fill approx. 85 per cent of all jobs within the Government of Nunavut by 2020. To meet this objective a number of training programmes have been launched.

The government has committed itself to Inuit Qaujimajatuqangit (IQ) as the guiding principle. IQ embodies Inuit traditional knowledge and values and guides the government in framing decisions, policies and laws that reflect the key philosophies, attitudes and practices on Nunavut’s Inuit majority

4.3.2 Education provision in Nunavut
The website for Nunavut’s Department of Education is being developed, so it was not possible to obtain detailed information of the education provision except for some content areas. Most information was found about secondary education. However, nearly all communities seem to be offering early childhood programs in addition to primary education (grades 1-6). The early childhood programs include daycares, preschools, Head Start Programs and after-school programs. With regard to secondary education Nunavut (CMEC2 2004-2005) generally follows Alberta’s secondary school system, but is working to incorporate IQ principles (see above) as the foundation of its education system. To do so the Department of Education collaborates with Elders.

Secondary schooling is organised in the same way as in NWT (see above) – with junior secondary comprising grades 7-9 and senior secondary comprising grades 10-12. In line with the principles in NWT Nunavut also allows schools to determine the school year that best suits the needs of the families in the community. The Education Act specifies that all students, where possible, must have access to their first language as the language of instruction. For the majority of secondary students in Nunavut, their first language is an Inuit language. The amount of instruction provided in the other official languages is determined at community level.

With regard to the organisation of the curriculum the objectives of the educational programs are defined in terms of competencies which are integrated and described across curriculum areas. There are four main strands running through the curriculum all through the education system – from kindergarten through grade 12. In secondary education the four strands may be defined as specific courses, while at primary level they are integrated around themes. The four strands are:

- **Nunavusiutit** – all about Nunavut for Nunavummit (the people of Nunavut), including areas such as history, geography, environmental science, circumpolar issues etc.
- **Aulajaaqtut** – all about wellness, including areas such as physical health, safety and survival, relationships etc.
- **Uqausiliriniq** – all about communication, language and relationship with others, including areas such as literacy, speaking, listening, presenting, bilingualism etc.
- **Iqqaqqaukkingniq** – all about maths, innovation and technology, including ways of describing and improving the world, ethical issues, using processes and procedures etc.

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16 The term Elder (or its equivalent in another language) is used in several different countries and organizations to indicate a position of authority. This usage is usually derived from the notion that the oldest members of a group are the wisest and thus most qualified to rule, provide council or some other form of leadership. In our context this refers to Elders of Inuit origin.
In secondary education the strands are presented in the following way when defining the criteria for graduation:

| 2004–05 Nunavut Senior Secondary School Graduation — Diploma Requirements |
|---------------------------------------------------------------|---|
| Uqausiliriniq (Communication) Strand:                        | 15 |
| English                                                       | (15) |
| Aulajaaqtut (Wellness/Leadership) Strand:                     | 10 |
| Aulajaaqtut (includes community practicum)                    | (4) |
| Physical Education                                            | (3) |
| Fine Arts                                                     | (3) |
| Nunavusiutit (Nunavut History, Heritage, Environment, Global and National Role) Strand: | 13 |
| Social Studies                                                | (10) |
| Northern Studies                                              | (3) |
| Iqqaqqaukkaringniq (Innovation and Technology) Strand:        | 25 |
| Mathematics                                                   | (10) |
| Science                                                       | (10) |
| Career and Technology Studies or N.E.A.T.                     | (5) |
| Additional credits at the 30 (grade 12) level                 | 10 |
| Total Specified Credits                                       | 73 |
| Additional Unspecified Course Credits                         | 27 |
| Total Minimum Credit Requirements                              | 100 |

Source: CMEC2 2004-2005

To cater for children with special educational needs a Centre of excellence for children and adolescents with special needs was established in 2000 at Lakehead University in Thunder Bay, Ontario. The centre cooperates with the government of Nunavut and has reach-out groups whose aim is to provide services to the different communities in Nunavut.

With regard to post-secondary education 17Nunavut Arctic College provides a range of different courses. The college has three campuses and 24 Community Learning Centres (CLC). There is also a research institute, Nunavut research Institute. The college offers a fairly wide range of programs, including teacher education. Teacher education includes a three year teaching Diploma and a four year Bachelor of Education which is provided in partnership with McGill University in Montreal, Quebec. In addition the College offers a one-year course in early childhood education for people who work with children from infancy to the school starting age at 6. Also, the college has a one-year programme to train Aboriginal language specialists who can then teach the two Inuit languages in schools.

4.3.3 The quality and outcome of education provision in Nunavut

Since the website of the education department in Nunavut is being developed, there may be more information available than the one we have been able to find. We have not been able to find any specific reports regarding quality and outcome of education provision in Nunavut neither at the territory’s own website nor at the Council of Education Ministers Canada (CMEC) website. The

17 Source of information: www.nac.nu.ca
CMEC website includes information on pan-Canadian assessment programs, but Nunavut is not included in any of them, as far as we have been able to find out. Before the creation of Nunavut in 1999 results from Nunavut schools were part of the results from the Northwest Territories.

4.4 **YUKON TERRITORY**

4.4.1 **About Yukon Territory**

Yukon has a population of approx. 33,000, of which nearly 24,500 live in the capital Whitehorse. About one-fourth of the population is of Aboriginal origin, mostly First Nation origin. Most Yukon First Nations belong to the Athabascan cultural and linguistic tradition. Yukon was established as a separate political entity during the height of the Klondike gold rush and its first legislative council was appointed in 1898. Today mineral industry and tourism are the main sources of Yukon’s economy.

The weekly average income in Yukon is 14.2 per cent higher as compared to the Canadian average and the territory has a lower unemployment rate compared to the country as a whole, but with seasonal differences (figures from 2007).

4.4.2 **Education provision in Yukon**

There was a grade reorganisation of the Yukon education system, starting in the beginning of the school year 1996-97 and completed by the end of school year 1998-99. The change consisted of a change from a three-tier to a two-tier system. The previous system consisted of the following tiers:

- Elementary – Kindergarten to Grade 6
- Junior high - Grades 7-9
- Senior high – Grades 10-12

While the current system’s two tiers are the following:
- Elementary schools – Kindergarten through Grade 7
- Secondary schools – Grades 8 through 12

Yukon Department of Education produces an annual report, and the following information is collected from the report from the school year 2006-2007 (Yukon Department of Education 2007):

- By May 2007 4,994 students were enrolled in the Yukon public school system, a considerable decrease compared to 1997 enrolment figures and a decrease of 3 per cent compared to 2006. It is estimated that the enrolment will stay around 5,000 towards 2012.
- The territory has 14 rural schools and 15 schools in Whitehorse and surroundings, ranging from less than 10 pupils in the smallest school in Destruction Bay up to nearly 650 in the largest secondary school in Whitehorse.
- Approx. 30 per cent of the school population are of Aboriginal origin. Most of these are First Nation pupils, and in the rural schools they represent approx. 64 per cent of the total school population.
- Yukon enjoys the most favourable pupil – teacher ratio (PTR) in Canada. In the school year 2006-2007 the PTR was 10.8 compared to the Canadian average which was estimated at 16.
- The expenditure per student was $14,565 as of March 31st 2007. There has been a considerable increase due to declining enrolment and thereby loss of staffing efficiencies, but also because of increased costs for heat and light and other school utilities.
- Yukon provides a distance education program free of charge for students from grade 4 to 12. The courses are available in a variety of delivery models including online, computer-enhanced, paper-based, video conferencing etc. Yukon Distributed Learning Program included 141 students taking 51 different courses in 2006-2007.

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18 Source of information: www.gov.yk.ca
The territory has an Individual Learning Centre (ILC) which opened in 2005 in Whitehorse. The aim of the centre is to cater for students who have dropped out of school and want a non-conventional educational provision where they can learn at their own pace to complete and graduate from secondary education. Figures from the school year 2005-2006 show that students with the so-called “potential to graduate” has risen with 51.9 per cent compared to the school year 1995-96. The actual graduates rose with 70.2 per cent in the same period – from 181 to 308. In 2006-2007 124 students studied through ILC.

Yukon Department of Education has a test program for Yukon students, so-called YATs (Yukon Achievement Tests). Results from YATs are presented in the annual report. The results are split based on origin. Results from 2006-2007 show that First Nation students performed below the established standards while non-First Nation performed above or at the standard. This is, according to the report, at least partly due to higher absenteeism in rural areas, in particular amongst First Nation students.

In 2006-2007 20 per cent of the graduates were of First Nation ancestry. This figure has remained at about the same level for the last year, but a decade back only 8 per cent of the graduates were First Nation students.

With regard to secondary education Yukon schools follow the British Columbia program of studies with adaptations for territorial and local circumstances and the inclusion of Yukon First Nation and Northern perspectives (CMEC3 2004-2005). Schools are advised to use the local environment as the context for learning and for integrating subject areas into meaningful units, i.e. cross-curricular topics. The adaptations of the curriculum include a subject called Yukon First Nation studies at grade 12 and Athapaskan at grade 11 and 12. These subjects focus on history, traditions and practices of the indigenous peoples of Yukon.

For children with special educational needs there are so-called resource programs. However, as much as possible, students will have their special needs met in class, alongside their peers. If parents or teachers decide that it is necessary, the student may be referred to the School Based Team. Consultants from the Special Programs Division provide many services to students with special needs: school psychology; speech and language pathology; physical and occupational therapy; and assistance for the hearing or visually impaired.

With regard to First Nation students, the Department of Education created a new unit under the Public Schools Branch in August 2006. The unit is called First Nations Programs and Partnerships (FNPP), and in the school year of 2007-08 the department granted more than 5.2 million Canadian dollars to support the new unit and initiatives in First Nations education. According to the governments website the objective for the FNPP is to:

- Build productive relationships with First Nations
- Improve the results of First Nation students in the K-12 system
- Work toward increased levels of cultural inclusion in Yukon schools
- Provide direct and indirect support to Yukon First Nations, schools and the Department of Education

With regard to the work of the FNPP, the governments states that:

*Already the FNPP is making considerable progress. Working collaboratively with the First Nation Education Advisory Committee (which invites representation and participation from all Yukon First Nations), the FNPP has developed several exciting First Nation curriculum materials and resources for the Yukon classroom.*

- Currently under development are Yukon First Nation focused Social Studies units for grade 4, which will focus on the tradition of potlatches, the geography and languages of the 14 Yukon First Nations, and the meaning of traditional lands.
• Three new titles in our Yukon First Nation-focused Early Reader NorthWind Books series will also be available shortly.
• The FNPP is also working to adapt the British Columbia First Nation Studies 12 course for use in Yukon classrooms.
• In partnership with CYFN and thanks to Northern Strategy funding, development of an interactive DVD featuring Yukon First Nation Elders is currently underway. This DVD will be created with elementary school audiences in mind.
• In addition to the FNPP work in curriculum materials and resources, the unit is also developing an Engagement Protocol which will outline best practice on how to involve First Nations in school activities.

A new handbook, An Introduction to First Nations Learning Resources, has recently been released by the FNPP unit to help teachers include a First Nation perspective throughout the curriculum.

4.4.3 The quality and outcome of education provision in Yukon

Yukon is the territory where we find most information in results from pan-Canadian assessment programs. The previously mentioned SAIP (see section 4.2.3 above) includes the following results concerning the performance of Yukon students:

• There are significant differences between the performance of Yukon 13 year-olds and Canadian students overall at levels 1, 2 and 3 in mathematics content in the 2001 SAIP. 52.5 of Yukon students performed at level 2, which is defined at the acceptable standard, compared to 64.4 in Canada as a whole. There is also a decline in students reaching levels 1-3 compared to the 1997 SAIP. With regard to 16 year-olds 44.5 of the Yukon students reached level 3, compared to 49.7 in Canada overall. In the area of problem solving Yukon students performed fairly close to the Canadian average for the 13 year-olds, but there are significant differences in the 16 year-old group, where the a lower percentage of Yukon students perform at levels 1 – 3.
• Yukon 13 year-olds’ performance in writing in 2002 is similar to the Canadian overall results at levels 1 and 5, but is considerably lower at level 2, which is the level defined as acceptable standard. 16 year-olds perform considerably lower compared to the Canadian overall results at all levels except level 5.
• The SAIP in science in 2004 show that fewer 13 year-old students achieved all levels compared to the Canadian average. In the case of 16 year-olds fewer students reached levels 1, 2 and 4 than those from across Canada, while the achievement at levels 3 and 5 were similar to the Canadian overall.

PCAP – Pan-Canadian Assessment Program - is the most recent of CMEC’s programs to assess student performances across Canada. The first assessment round took place in 2007 and focused on the performances of 13 year-olds in reading (major domain), mathematics and science (CMEC 2008). There will be a new round in 2010 when Mathematics will be the main domain, and another one in 2013 with science as its main domain. Of the three territories, only Yukon participated, which is why we haven’t presented results from PCAP for the other territories above. All 13 year-olds in Yukon participated in the PCAP in 2007.

The Canadian mean is set at 500 for all subjects. The results in reading show that Yukon got a mean score of 486 which is significantly lower than that of Canadian students overall. However, there are 6 provinces that have a lower mean compared to Yukon. Lowest was Prince Edward Island with 460. Yukon females, however, has a mean score of 499 which is not significantly lower than the Canadian mean. The mean score for Yukon males was 473. Yukon also scored significantly below the Canadian mean in mathematics with a mean score of 451, which was the second lowest score – only Prince Edward Island scored lower. In science Yukon scored the lowest of all jurisdictions with 462 as the mean score. The mean scores for Yukon in mathematics and science has not been split depending on gender.

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4.5 STATISTICS ACROSS THE TERRITORIES

Statistics Canada provides quite rich statistics about education by variables such as region and ethnic group. Quite a lot of work is needed to get the data systematised (percentages etc) in such a way that it can be relevant for a possible EFA project in the future. Therefore, this section only includes a selection of the supposedly most relevant tables, combined with references to further tables.

Regions selected for comparisons in Canada are, as mentioned above, Nunavut, Northwest Territories and Yukon, since all these three territories all have land mass which lies north of the Arctic Circle.

The first table shows level of schooling in the three territories (Northwest Territories, Nunavut and Yukon), compared to national scores (left column). Nunavut Territory stands out as a province with low educational level compared to the others. 56 per cent of the population has elementary school as highest education level, and only 12 per cent has education at university level. The Northwest Territories also shows scores somewhat under average for Canada. The score for Yukon Territory, however, is equal to the national level concerning university education, but has a higher proportion with college education.

Population 15 years and over by highest level of schooling, by province and territory (2001 Census). Percentages.

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Canada</th>
<th>NWT</th>
<th>NT</th>
<th>YT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary-secondary only</td>
<td>45.4</td>
<td>44.1</td>
<td>55.5</td>
<td>34.6</td>
</tr>
<tr>
<td>College education only</td>
<td>25.3</td>
<td>30.1</td>
<td>28.8</td>
<td>34.3</td>
</tr>
<tr>
<td>University</td>
<td>25.8</td>
<td>22.8</td>
<td>12.0</td>
<td>27.6</td>
</tr>
<tr>
<td>University with degree</td>
<td>15.4</td>
<td>13.6</td>
<td>0.8</td>
<td>15.9</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The next table shows educational level by First Nation status. We observe that the proportion with high school graduation (or higher) is substantially lower among people with registered First Nation status (49 per cent) than among people not registered as having First Nation background (69 per cent).

Level of schooling by First Nation status (or not) (2001) Population 15 years and over. Percentages.

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Total – First Nation status</th>
<th>Registered First Nation</th>
<th>Not Registered First Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population 15 years and over by highest level of schooling</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Less than high school graduation certificate</td>
<td>31.3</td>
<td>51.4</td>
<td>31.0</td>
</tr>
<tr>
<td>High school graduation certificate only</td>
<td>14.1</td>
<td>8.6</td>
<td>14.2</td>
</tr>
<tr>
<td>Some postsecondary education</td>
<td>10.8</td>
<td>12.8</td>
<td>10.8</td>
</tr>
<tr>
<td>Trades certificate or diploma</td>
<td>10.9</td>
<td>11.4</td>
<td>10.9</td>
</tr>
<tr>
<td>College certificate or diploma</td>
<td>15.0</td>
<td>10.5</td>
<td>15.0</td>
</tr>
<tr>
<td>University certificate or diploma below bachelor's degree</td>
<td>2.5</td>
<td>1.4</td>
<td>2.5</td>
</tr>
<tr>
<td>University degree</td>
<td>15.4</td>
<td>3.9</td>
<td>15.6</td>
</tr>
</tbody>
</table>

19 Source: www40.statcan.ca/l01/cst01/educ43d.htm
20 Source: Statistics Canada
The next table shows that the proportion of people above 15 years of age attending school full time is higher among registered First Nation (17 per cent) than among inhabitants not registered as First Nation (12 per cent).

<table>
<thead>
<tr>
<th>Total population 15 years and over by school attendance</th>
<th>Total – Registered First Nation status</th>
<th>Registered First Nation</th>
<th>Not a Registered First Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not attending school</td>
<td>83.7%</td>
<td>78.6%</td>
<td>83.8%</td>
</tr>
<tr>
<td>Attending school full time</td>
<td>11.6%</td>
<td>16.8%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Attending school part time</td>
<td>4.7%</td>
<td>4.6%</td>
<td>4.7%</td>
</tr>
</tbody>
</table>

Statistics Canada provides various administrative data that can be broken down on for instance territories, and group of indigenous people (aboriginal identity). Since the information needs to be systematised and calculated into relative rates for each variable, comprehensive analyses of the available data unfortunately exceeds the limits for this project.

PCEIP 2007 – Pan-Canadian Education Indicators Program (CMEC 2007) contains a comprehensive report on education indicators across Canada, and also includes some international comparisons. Some of the results are broken down on the separate Canadian jurisdictions, and we include information about the indicators which includes information about the three territories. Compared with the total Canadian population the Aboriginal population has a higher fertility rate and is therefore likely to grow faster than the total population (ibid.:7-8), something which the education systems in the different jurisdictions need to prepare for. In the territories the Aboriginal population aged 0 to 14 is expected to grow by 47 per cent in Yukon, 40 per cent in the Northwest Territories and 28 per cent in Nunavut by 2016.

According to PCEIP 2007 (ibid.:31) expenditure relative to GDP ranged from 18.5 per cent in Nunavut to only 5.3 per cent in Alberta in the school year 2002-2003. Yukon had the second highest result with 10.4 per cent while the figure from NWT 8.0 per cent. The Canadian average was 6.4 per cent. In 2002-2003 the lowest graduation rates were in the three territories (ibid.:58). Nunavut graduation rates were 25 per cent for males and 26 per cent for females, NWT reached 38 per cent for males and 50 per cent for females, and lastly, Yukon’s graduation rates were 52 for males and 60 per cent for females. The national average was 70 per cent for males and 78 per cent for females. When broken down into graduation rates at the typical age of graduation, the figures show that only 12 per cent on Nunavut males and 14 per cent of Nunavut females graduated at the typical age. The rates for Canada as a whole was 62 per cent for males and 72 per cent for females.

PCEIP 2007 contains information about literacy levels in the jurisdictions (ibid.:103). Literacy skills were assessed through the International Adult Literacy and Skills Survey (IALSS) in 2003 and included tests for more than 23,000 individuals from all over Canada. The tests included four domains – prose (skills needed to understand ordinary texts), document (skills needed to understand forms or graphics), numeracy (mathematical skills) and problem solving (planning and reasoning skills). Level 3 is considered the ‘desired’ threshold of competence for being able to cope with the challenges of modern society.

Literacy is not uniformly distributed. Of the three territories Yukon is among the four jurisdictions where average proficiency scores were found to be consistently above the Canadian average across all

21 Source of information: www12.statcan.ca/english/census01/shared/redirectproduct.cfm?ips=97F001IXIE2001058
four domains measured in IALLS 2003, while Nunavut was among the three were scores were
consistently below the Canadian average. Yukon had the highest average proficiency scores in all four
literary domains as well as the highest proportion of the adult population scoring at levels 3, 4 and 5 (5
id the highest level). The explanation given is (ibid.:105):

Data from the 2001 Census of Canada and the 2003 Yukon Labour Force Survey show that
when compared to Canada as a whole the population in the Yukon is more concentrated in the
25-to-34 age group and in management, social science and government occupations. These
ages (especially the 46-to-55 age group) and types of occupations have been found to be
associated with higher literacy performance.

The low results for Nunavut is explained by the fact that the IALSS test were conducted solely in
English or French, while more than half of the Nunavut respondents use Inuktitut as their daily
language of communication. Because of this the report concludes that the Nunavut results do no
provide an accurate profile of the competence of the population in Nunavut. For the majority of the
respondents it must instead be viewed as an indicator of their proficiencies in a second language.

In 2001 (ibid.:116) between 31 and 51 per cent of the Aboriginal working-age population had
postsecondary qualifications. Among the highest was Yukon with 48 per cent while Nunavut had the
lowest percentage with 31 per cent.

In addition to the areas referred above, the publication also contains information on PISA results for
the provinces but not for the three territories. The same is the case with regard to information about
ICT availability and usage, enrolment and graduations in post-secondary education, expenditure on
research and development and transitions to postsecondary education and transitions to the labour
market.

4.6 CANADA - SUMMARY

With regard to availability and awareness of relevant EFA issues, the same is the case in Canada as it
was in Alaska. Judging from the available information there seems to be a high awareness in particular
of the situation for First Nation peoples, and there is a wide variety of sources available from the three
Canadian territories that comprise the Canadian Arctic region. The three territories are separate
jurisdictions with their own education systems, but cooperate with the Canadian provinces through
CMEC – Council of Ministers of Education, Canada. CMEC provides a lot of data regarding outcome
and quality of the education systems.

With regard to major challenges the three territories share a situation with small populations, huge
geographical areas with many communities that are not easily accessible other than by air, a complex
language and culture situation, difficulties of recruiting teachers, in particular teachers with First
Nation background, etc. However, with regard to education level and the outcome of the education
system Yukon is in a better position as compared to the two other territories. This is mainly due to the
fact that a very high percentage of the population (nearly 75 per cent) live in the capital where the
level of education and availability of jobs that require higher qualifications are higher as compared to
the rural areas. Also, the percentage of First Nation population is lower in Yukon as compared to the
two other territories. In general, the highest challenges with regard to achievement levels, drop-out
rates and graduation rates are among the First Nation student population in the three territories.
Nunavut is a new territory and is in the process of developing its education system. This fact and the
fact that Inuit principles are going to found the basis for the development of the education provision in
the territory makes it a very interesting case for further study and research.
5 FINLAND

5.1 ABOUT ARCTIC FINLAND – THE COUNTY OF LAPPLAND

The county of Lappland has about 185,000 inhabitants and is by far the least densely populated area in the country. The biggest towns are the provincial capital of Rovaniemi (36,000), Kemi (23,000) and Tornio (22,000). It is estimated that about 7,000 Sámi live in Lappland. The major towns are at or near the coast, while the small populations are inland. The map below shows Finland, with a specification of which areas are north of the Arctic Circle. As we can see from the map not all of Lappland lies north of the Arctic Circle; Kemi and Tornio is south of it while Rovaniemi is right at the Arctic Circle.

http://www.worldatlas.com/webimage/countrys/europe/fimaps.htm

5.2 EDUCATION PROVISION IN FINLAND

Compulsory education in Finland lasts for nine years, starting at the age of seven. The Finnish comprehensive school is also a uniform school which means that all children follow the same education. The Finnish education system was changed considerably during the 1990s. The most significant change was related to the decentralisation of the administration system which was based on steering through legislation. Now, the decision making powers and responsibilities have been transferred to the local level. Local educational providers, mostly local municipalities, can draw up their own curricula on the basis of the National Core Curricula. Local providers of education have good opportunities to influence how the cooperation between schools and pupils'/students’ homes and other representatives of the local community should be implemented. Even if municipalities and separate schools can decide issues related to public education, the possibilities are very limited for schools in the Northern regions due to scarce financial resources (Sunnari and Kuorikoski, N.d.)

The local authorities are responsible for organising basic education and maintenance of schools at the local level. In addition to organising instruction, each local authority is generally responsible for social welfare services for pupils and students. Welfare services include free school meals, school health care, dental care, as well as the services of school welfare officers and psychologists.
The main objective for Finnish education policy is to offer all citizens equal opportunities, regardless of age, domicile, financial situation, sex or mother tongue. Education is considered to be one of the most fundamental rights for all citizens. Public authorities are obliged to guarantee everyone an equal opportunity to obtain post-compulsory education according to their abilities and needs, and to develop without being prevented by economic hardship (Kyrö and Nyyssölä 2006). According to international comparisons, differences between schools are very small in Finland. Therefore, it is very rare for parents to choose another school for their children than the local school. However, Nyyssölä (2005) says that the social factors prevailing in a municipality or an area are reflected in both the students’ attitudes towards school and their school results.

Every child has the right to participate in kindergarten provision for a total of 700 hours before entering primary school. Local authorities are responsible for providing this education provision, and it is free of charge to the families. Participation in kindergarten provision has increased rapidly since the early 1990s, reaching 70 per cent in 1998 (Statistics Finland 2003). According to the Ministry of Education (2003), 75 per cent of the six-year-olds received this kind of provision in 2003. In addition to formal pre-school education there are day-care centres which take care of children younger than 7 years old but do not provide formal pre-school education. These are maintained by municipalities but administered by the Ministry of Health and Social Care. Although they are not formally part of education system, in practice their functioning does not differ much from that of other pre-primary institutions (www.oecd.org/dataoecd).

Compulsory education is provided free of charge, and the municipalities are responsible for providing it. Also, private schools are not allowed to collect student fees. Less than 2 per cent of comprehensive schools are private and they usually have a religious character or use a special educational /pedagogical approach. In 2003, 11 per cent of general upper secondary schools and 52 per cent of vocational institutions were privately owned (Kyrö and Nyyssölä 2006). The private schools are obliged to follow the National Core Curricula and the Requirements of the Competence-based Qualifications confirmed by the National Board of Education.

The National Core Curricula has recently been reformed. The New National Core Curriculum was introduced in 2005 for compulsory education and in 2006 for upper secondary education. The basic values for compulsory and upper secondary education rest on the following themes:

- promotion of sustainable development
- clarification of cultural identity and internationalisation
- promotion of physical, mental and social well-being
- growth into a member of civil society (Nyyssölä 2005).

After completing compulsory education there are two main possibilities to choose from: 1) upper secondary school for general education and 2) vocational school. More than 90 per cent of the pupils that complete compulsory education continue into upper secondary education (Finnish National Board of Education 2006). General upper secondary school prepares the students for the matriculation examination which provides general eligibility for higher education. The scope is three years and should be completed within a maximum of four years. The principal objective for the vocational programmes is vocational competence. Initial vocational education is provided in vocational institutions and in the form of apprenticeship training in virtually all fields. It includes at least six months of instruction in the work place. Vocational training builds on the basic education syllabus. A three year vocational qualification gives students the opportunity to apply for all forms of higher education. Students in upper secondary and higher education receive additional financial support and free transportation is provided for school journeys exceeding five kilometres.
5.3 THE SÁMI POPULATION IN FINLAND

The Sámi population in Lappland is about 7,000 and it is the smallest group of Sámi in the Nordic countries. The Sámi were recognised as the indigenous people of Finland in 1995 and the Sámi were granted the right to maintain and enhance their language and culture. It is the Act on the Sámi Parliament (974/1995) which guarantees the Sámi speaking population cultural autonomy concerning their language and culture. The Sámi Parliament was established in 1996. The Sámi Parliament is the only body in Finland entitled to represent the official opinion of the Sámi in matters concerning themselves. The Sámi Parliament also decides how the state appropriations granted for the needs of Sámi culture, and the production of Sámi educational material, are to be used.

In the four municipalities located in the Sámi domicile area, pupils speaking Sámi must primarily be provided with basic education in that language according to their parents’ wishes. The Sámi children do not have their own general curriculum. However, the Sámi language can be the language of instruction in compulsory education as well as in general and vocational upper secondary education and training, and it can be taught either as the mother tongue or as a second language (Nyyssölä 2005). The Sámi communities get special funding for organizing the teaching of Sámi in their schools. There is no specific teacher training for Sámi teachers; they are usually Sámi who have undertaken regular teacher training at the university (Ahonen et al. 2008).

Sámi is no longer the only language spoken by the Sámi, because many Sámi are bilingual. On the other hand, there are many Sámi who do not speak Sámi, but only Finnish. Education in Sámi began with elementary instruction in the 1970s in Utsjoki and the first special positions for Sámi class teachers were established in 1975. In the 1990s five to six times as many pupils were receiving and schools were providing such education according to statistics. By the end of the 1980s Sámi was taught in all schools in the Sámi region. As the amount of instruction has increased, the problems and needs for resources have become more apparent. The recession and a drop in state subsidies for the municipalities in the Sámi Region have resulted in competition about decreasing resources. One of the problems is the small number of Sámi-speaking teachers, and another is the shortage of Sámi instruction material. The state allocates resources for producing this kind of material, but since 1996 the production of Sámi instructional material has been the responsibility of the Sámi Parliament. A central challenge for instruction in school is the differences in the pupils’ language skills in both Sámi and Finnish.

5.4 THE QUALITY AND OUTCOME OF EDUCATION PROVISION IN NORTHERN FINLAND

Statistics Finland provides a wide variety of educational statistics. However, mainly summary presentations are available in English and Swedish, and there seems to be little educational data broken down on municipality or county (län) level in these languages, which again is necessary to make the distinction between arctic/non-arctic areas. Due to time constraints, we have not been able to get the statistics which are available only in Finnish translated. We have used information from the OECD thematic review of equity in education across member countries (OECD 2005) as the main basis for the description of the situation of Finland, in addition to other sources. The OECD report addresses several topics relevant for the EFA issue.

With regard to post-compulsory education figures from 2003 show that 56 per cent chose general upper secondary education, 35 per cent opted for vocational education and training, 2.5 per cent continued at an additional 10th grade within the compulsory school system, and 7 per cent did not continue their studies straight away (Nyyssölä 2005).

In 2003, women formed the majority in 16 sectors of education whereas men were the majority in only four of the 20 sectors of university education. The share of female students was the largest in health sciences (91 per cent) and smallest in engineering and architecture (20 per cent). The overall share of
female university students was 53 per cent and for new students the corresponding figure was 56 per cent (www.oecd.org/dataoecd).

Kuusela (2003) examines the factors creating differences in learning outcomes between upper secondary schools. His data included matriculation examination results for the years 2000–2002, the education level of the parents of upper secondary school students, parents’ unemployment rate, average household income, and the proportion of households living in cramped housing. Socio-demographic factors have a significant effect on performance in the matriculation examination. They operate through a selection mechanism, which is twofold: First, there is regional selection because families’ material and non-material resources for supporting their children’s education differ regionally (Kuusela 2003). The second is spontaneous selection relating to the choice of school: some children attend the school closest to their home, while others choose some other school. According to Kuusela (2003), those who transfer to a school other than their local school after their 6th year, i.e. at the transition from primary to lower secondary level, perform better in their further studies on average than students who stay in their local school (www.oecd.org/dataoecd).

Evidence on the connection between parents’ and children’s education is strong and abundant, and a potential source of inequality. Parental education level can be considered a characteristic of the sociocultural environment of the student, which is also influenced by the overall level of education and attitudes towards education in the community. Kuusela (2003) conducted a survey among the principals of schools whose good results in matriculation examinations he could not explain statistically. The explanations they offered included a close-knit community and communication between school and families. Such positive environmental and cultural factors seem to offset the effect of family background in determining the academic performance of upper secondary school students (www.oecd.org/dataoecd).

The Country Analytical Report concerning Equity in Education (www.oecd.org/dataoecd) say that the effect which socio-economic factors and regional variation within them have on selection and participation in education and training still seems to be a key source of inequality in the Finnish education system. First, as regards basic and upper secondary education, national assessments show that there are significant differences in school performance. Second, the transitions from one level of education to another are critical. Upper secondary schools select their students based on grades, and universities and polytechnics use entrance examinations. Studies indicate that there is a connection between the family background and attainment in basic and upper secondary education and admission to higher education. Inequality within institutions or within regions is not of an alarming magnitude as yet, but inequality between schools and regions may be growing and therefore constitute a potential source of inequality in the labour market. There are indications of interconnection between these kinds of inequality, which warrant empirical research in the future.

Because of the cultural homogeneity, it has been comparatively easy in Finland to reach agreement on national education policy and the means of developing the educational system. This could also be part of the reason why education seldom has been a subject of major political or social controversy in Finland (www.oecd.org/dataoecd).

Finns have a relatively positive attitude towards education and school compared to the other Nordic countries. In the Nordic School Barometer in 2000 the Finns report that their schools are largely successful (Nyyssölä 2005). The Finnish populations’ attitudes towards education are strongly linked to the opportunity for upward social mobility and since the country is relatively poor in natural resources, it is important to invest in a high level of competence. Official educational policy is based on the fact that Finns trust that solid competence and a high level of education will guarantee well-being and positive economic development (Kyrö and Nyyssölä 2006). Due to this, the education level among young people has risen dramatically since the 1960s. Women represent the majority at all levels of education, with the exception of the compulsory comprehensive school and postgraduate researcher training. They are also the majority of those who have completed an educational qualification.
According to a study of the pupils’ attitudes toward school, there are no fundamental differences in attitudes between provinces, different types of municipalities (urban, suburban, rural), but concerning choices of upper secondary school, it is more common to apply for upper secondary education in urban areas than rural areas (Nyyssölä 2005). In the publication from the Finnish Ministry of Education questions concerning regional differences in provision of education seem not to be very central.

As mentioned above, local providers of education have good opportunity to decide how to develop the co-operation between their schools and pupils’/students’ homes and local communities. This involves participation in preparation of the curricula at school or local level and participation in education. According to (Nyyssölä 2005) there is no relevant research covering the whole country.

Migration from Northern to Southern Finland and its cities has increased, especially within the better-educated working population (Härkonen Leena HS 16.3 2002) and the working population in general. The result is a change in the demographic structure where the older population is over-represented in Northern Finland compared to Southern Finland.

In Finland educational inequality is a problem for the following groups: immigrants, individuals in rural areas, and children of lower socio-economic status. The differences between boys and girls are largely in favour of girls; except for the fact that (as in most developed countries) girls are slightly under-represented in technical subjects at the university level. Otherwise, if there is a gender problem in Finland, it is that boys are more prone to misbehaving and to dropping out (Grubb 2005).

In the Country Note on Equity in Education, Grubb (2005) says that one form of inequality in Finland that emerges persistently is the one between relatively urban municipalities in the south and rural areas located towards the north. Out-migration from rural areas, in combination with national demographic changes which are reducing the school-age population, has meant school closures in rural areas; for example Kuusamo once had 30 comprehensive schools and now has only 10, with several more due to be closed in the coming years. With declining numbers of schools, students have to travel longer distances to school. In addition, students have fewer choices when the numbers and the variety of secondary schools decline. This problem becomes even more difficult at the tertiary level. In response to this problem,

Finland has developed a regional network of more than 50 institutions of higher education, many of them with sub-campuses or branches in other towns. Despite this, students in remote areas are commonly forced to move away from home for both polytechnic and university education. Finally, small and remote municipalities often have problems recruiting teachers and other personnel, and they are more likely to have to use unqualified teachers. There is apparently a funding factor allocating somewhat more money to sparsely-populated communities, though it does no more than mitigate these pressures in rural areas. These are problems that educational institutions by themselves cannot resolve. Instead, some form of economic development is necessary to keep rural populations stable (Grubb 2005:35).

5.5 FINLAND - SUMMARY

The Finnish Arctic region is the county of Lappland with a population of 185,000 of which less than 4 per cent are of Sámi background. Due to a decentralisation process, the local school authorities have a fairly high level of self-management, including the opportunity to develop their own curriculum based on the National Core Curriculum. There is no specific Sámi curriculum, but Sámi children and youth can be taught in their own language in Sámi areas throughout compulsory and upper secondary education.

In line with the other countries presented in this report Finland has challenges with regard to the recruitment of teachers with Sámi background, provision of teaching resources in Sámi, out-migration
of young people from the Arctic areas of Finland, etc. With regard to the outcome of the education system, the main challenge in Finland is related to regional differences due to socio-economic factors. Generally, this is in favour of the urban regions in southern Finland as compared to the rural regions in the north. Because of scarce economic resources in some areas, particularly in rural areas, schools have been closed and students have to travel longer distances to get to school. Socio-economic factors and scarce economic resources in northern rural areas pose challenges for the development of the education system in general, but also with regard to the Sámi population.
6 GREENLAND

6.1 ABOUT GREENLAND

The population of Greenland is about 55,000, and the majority (80 per cent) are people born in Greenland. Almost 90 per cent of the population in Greenland are Inuits. The main part of the population is concentrated in 18 small towns. The largest is the capital Nuuk where about 14,000 people live, and the second largest is Sisimiut with 5,400 inhabitants. About 9,500 people live in 62 smaller settlements (Goldbach 2000). Communication between the settlements is limited because there are almost no roads in some areas. Many settlements can only be reached by helicopter or sea when it is ice free. The settlements are therefore rather isolated and support themselves by fishing and hunting. Because of transportation issues the local community is the central context for people’s everyday life.

Greenland is a self-governing area within Denmark. In 1979 Greenland became an autonomous province of the Danish Commonwealth when the Home Rule was established. Greenland is now governed by a Legislative Assembly. The Assembly sets the framework within which all local laws are enacted. The foreign policy, defence and justice system are administered in cooperation with Danish authorities (Olsen 1993). According to the Home Rule, the Greenlandic language is the primary language and Danish is the second.

The map below shows Greenland and specifies land mass which is north of the Arctic Circle.


The economy of Greenland, as in other areas in the Arctic, can be described as a mixed economy where people combine income from both wage employment and hunting fishing and gathering (Wolfe and Walker 1987). In the cities the labour market is more varied, including quite a lot of jobs within
the service sector, but in the rural areas hunting and fishing are the central sources of income and subsistence. Licensed professional hunters account for the harvest of traditional foods. Households can buy these products at local markets. Greenlandic households are, with some restrictions allowed to hunt and fish for household consumption (SLiCA Results 2002). According to SLiCA 22 (2006) about 50 per cent of the population, 56 per cent in the towns and 49 per cent in the villages, would prefer to be wage workers, while 44 per cent in the towns and 50 per cent in the villages would like to work within the primary industries or be self-employed. 64 per cent of women and 48 per cent of men would like to be wage workers (ibid.). If the young generation continue to follow this pattern, there will be significant differences in what kind of education that will be relevant for their future work, and these differences will also be linked with gender. Knowledge about hunting, fishing and gathering, including food preparation and traditional skills are very important for maintenance of Greenlandic identity (SLiCA 2006).

6.2 EDUCATION PROVISION IN GREENLAND

In 1953 Greenland ceased to be a Danish colony and became a Danish county, granting inhabitants equal rights with the rest of Denmark, including access to education. Therefore the Greenlandic education system had to be changed along the same lines as the Danish. This transformation required more resources than the Greenlandic society could provide. To cater for the changes considerable amounts of teachers and teaching material was transferred from Denmark. In the seventies only 200 of the 800 teachers needed, could speak Greenlandic. The centralization of the Greenlandic school system in the 1970s posed a severe threat to Greenlandic settlement life. Many pupils had to leave their home settlement to attend boarding school in the town. In the years after the introduction of Home Rule, efforts were therefore made to support the settlement schools. This has been considered as an appropriate way to protect important social and cultural aspects of the Greenlandic society.

With the advent of Home Rule in 1979 a minister for culture and education was appointed and has since headed the Ministry for Culture, Education and Research. The first political action after the establishment of the Home Rule was the enactment of a new school statute. This involved a decision that the language of instruction should be Greenlandic and that the contents of the school subjects should to a greater extent be adjusted to the needs of Greenlandic society.

Unlike the situation in other countries with Inuit speaking population, Greenlandic is a majority language. However, due to the colonial past influencing the languages used in formal settings, it is more accurate to describe the Greenlandic society as bilingual (Goldbach 2000). Since the colonial period, leading positions have been occupied by Danes who only spoke Danish. The lack of teachers and other qualified people to the labour market have resulted in a considerable import of people from Denmark. The Danes normally hold good jobs within the administrative and the education system. Many of these spend only 2-3 years in Greenland and tend never to learn the language.

The school system has many similarities with the Danish system, but has developed its own specific characteristics. The public school is operated as a municipal school. Each municipality manages the provision of education and each school has a school board, composed of parents, which ensures the influence of parents in the daily activities of the school (Olsen 1993). The administrative and pedagogic management of the schools is handled by a municipal school principal. In each of the 18 municipalities there are one or two schools. Greenland has a total of 24 town schools (from 80-700 pupils) and 62 settlement schools of varying size from 10 to 150 pupils. The settlement schools are set up in order to avoid boarding schools. However, most town schools and settlement schools have residence halls for pupils who want to attend the continuation school (10th and 11th grade) (Goldbach 2000).

The public, municipal school is free and consists of grades 1 to 11. The main school 1-9 is compulsory, but the majority continues to the 11th grade. The first grade is a mix between a

22 SLiCA: Survey of Living Conditions in the Arctic
kindergarten and a school for children at the age of 6. The 2nd to 9th grade is a comprehensive main school. The 10th and 11th grades are not compulsory. It is divided into two branches; one preparing the pupils for upper secondary courses (Gymnasium) and the other for vocational training.

In order to feel that the school is relevant for them and that their culture is recognised, it is important for the indigenous pupils and students that issues concerning their culture and history are taught in school and are presented in an appropriate manner. In the SLiCA study (SLiCA 2007) 86 per cent say that they are taught about indigenous culture and history in elementary or high school, but only 18 per cent report that what they were taught were accurate. The lack of teachers with Greenlandic background and knowledge of Greenlandic culture can maybe explain this situation.

6.3 THE QUALITY AND OUTCOME OF THE EDUCATION PROVISION IN GREENLAND

Compared to other countries in the Arctic, the education level among the indigenous population is relatively high. 46 per cent have vocational school or college as highest level of education, while the corresponding figures are 16 per cent in Canada, 25 per cent in Alaska and 42 per cent in Chukotka, an Arctic region in Russia. Only 10 per cent have elementary or less as the highest level of education, while 44 per cent in Canada, 26 per cent in Chukotka and 22 per cent in Alaska have the same level of education (SLiCA 2007). However, recent statistics (2006) comparing educational level among people with background (ethnic or geographic) in Greenland or Denmark show that people born in Greenland have a substantially lower educational level than people born in Denmark.

The educational level in the adult population differs significantly between towns and villages. In the towns, 58 per cent of the adults have vocational or upper secondary school, while the corresponding figure in the villages is 32 per cent. The educational level has increased since 1994 when the numbers where 52 per cent in the towns and 28 per cent in the villages with vocational or upper secondary education (SLiCA 2007).

It is considered as a problem that only about 25 per cent of the pupils proceed to the gymnasium and that the drop-out rate amongst the ones in gymnasium is 40 per cent. This leads to another problem which is that only about 5 per cent of the population have completed a higher education at a tertiary level, including teachers’, nurses’ and bachelors’ degrees. In vocational school the high drop-out rate, about 40 per cent, is also considered a problem.

The teacher training in Greenland has a 150 year-long history. The present teacher training law was enacted in 1989. In the last five decades Greenland has had a continuing lack of Greenland speaking teachers, and this problem is not yet solved. In 1999, there was a total of 970 teachers within primary and lower secondary education. Only 533 (55 per cent) of these teachers were bilingual and able to speak both Greenlandic and Danish, while 206 (21 per cent) were Danish, only able to speak Danish. There are also many temporary teachers without full time positions and many of these are not formally educated as teachers. This situation is, however, better than in other areas where Inuits live (Goldbach 2000).

6.4 GREENLAND - SUMMARY

Greenland is the region within the Arctic with the highest percentage of indigenous population; 90 per cent of the Greenlandic population is of Inuit background. This means that the majority language is Greenlandic, but because of its history of being a Danish colony, the language situation in Greenland can be characterised as being bilingual in many areas. With regard to demographic factors Greenland can be compared to the Canadian territories; a relatively small population in a huge geographical area in which many of the settlements are not easily accessible other than by air. With regard to challenges within the education system, Greenland shares many of these with the other Arctic regions; lack of
educated teachers, in particular teachers with background in and knowledge of Greenlandic language and culture, high drop-out rates from post-compulsory education, low attendance of indigenous population in post-secondary education, and a less favourable situation in the settlements as compared to the towns, etc.
7 ICELAND

7.1 ABOUT ICELAND

One of the major distinctions in the Icelandic society is the one between Reykjavik with its surroundings, where about 60 per cent of the population live, and the rural areas and fishing villages. This distinction plays an important role in the socio economic development and is important for young people because their situation differs considerably depending on whether they live in a rural or urban area. The rural areas are dependent on the fisheries, while the urban areas have a more varied labour market, generally dominated by the service sector. Due to these differences, formal education has been less relevant for qualification to the labour market in the rural areas as compared to the urban areas. However, there has been a major reduction in the labour force related to the fisheries, and there is a significant out-migration of young people from rural areas (Helve 2003).

The settlement in Iceland is centralised with nearly two thirds (180,000) living in and around the capital. About one third (110,000) of the population live in rural communities or fishing villages ranging in population between 200 and 400 people. About 20,000 live in small villages with less than 200 people. This represents a challenge to providing equal education for all. Many of the young people living in rural areas say that they want to move to more central areas.

The map below of Iceland shows that only a very small amount of its land mass lies north of the Arctic Circle.

http://www.worldatlas.com/webimage/countrys/europe/lgcolor/iscolor.htm

7.2 EDUCATION PROVISION IN ICELAND

The education system in Iceland is divided into four levels:
- Pre-school up to 6 years of age,
- compulsory (primary and lower secondary in a single structure) 6-16 years,
- upper secondary 16-20 years, and
- higher education from 20 years onwards.
(Source of information: Ministry of education, science and culture 2002)
A fundamental principle in the Icelandic educational system is that everyone should have equal opportunities to acquire an education, irrespective of sex, economic status, residential location, religion, possible handicap, and cultural and social background. There is a strong emphasis on inclusiveness and equal educational opportunities in primary school. In theory, every child is entitled to schooling in his or her home community, but in practice, some schools in rural and remote areas have difficulties in providing an equitable education for children with special needs (Sigthorsson 2005).

Local municipalities have the responsibility for implementing the law of pre-school education. Preschools are often located in buildings specifically designed and constructed for the purpose. All parents pay fees for their children in pre-school. Parental contributions cover roughly 30 per cent of the operating costs of publicly run pre-schools. Pre-school provision should be made available to all children under school starting age which is six years. About 90 per cent of children aged 3-5 years old attend pre-schools and 21 per cent of children younger than 3 years old have this kind of provision.

In accordance with the Compulsory School Act of 1995 the local municipalities are responsible for the establishment and running of compulsory schools. The pupils have the right to attend school in the area where they live. The country is divided into more than 30 Local Educational Authorities, and their main responsibilities are to assist schools in catering for special needs, providing psychological service for pupils when needed, advising on the organisation of teaching and learning, promoting school development and playing a role in in-service education and staff development.

There are 180 compulsory schools in Iceland (Hagstofa Íslands, ref Sigthorsson 2005). Schools vary considerably in size. The largest schools are found in the capital and the suburbs with schools which have up to 800 pupils. There are many small schools outside Reykjavik and its suburbs, many with as few as 10 pupils. Around 60 schools have less than 120 pupils (Hagstofa Íslands, ref Sigthorsson 2005).

Educational equality is ensured partly by the government’s responsibility for the whole system and partly by a detailed national curriculum. The National Curriculum Guidelines apply to all grades and subjects in compulsory school. However, each school has the opportunity to take into account its community and the local environment.

7.3 THE QUALITY AND OUTCOME OF EDUCATION PROVISION IN ICELAND

There is little official evaluation or inspection of individual schools, or of the national system. Examinations and other forms of assessment, usually written, are carried out by individual teachers and schools, and are therefore not standardised. Nationally coordinated examinations at the end of compulsory education are optional. The purpose of these examinations is primarily to indicate the pupil’s standing and help him/her in choosing a course of upper secondary study.

More than 4,000 of the teachers in compulsory schools (about 85 per cent) have a teaching qualification, most of whom have a three-year university degree in education. Teacher education for primary and lower secondary schools has been at university level since 1971. More than 1,200 of upper secondary teachers (about 75 per cent) have a teaching qualification, which is generally a university degree in a teaching area or a vocational qualification, plus the equivalent of half to one year’s university training in education. Most of the rest have a university education or an advance vocational qualification but not a teaching qualification.

23 Sources of information: bella.mrn.stjr.is/utgafur/rannis/summary.pdf and eng.menntamalaraduneyti.is/education-in-iceland
The drop-out rate in upper secondary school is fairly high; an estimated 65 per cent of the pupils complete their studies in upper secondary school within the prescribed four years.

At compulsory school girls perform better than boys in standardised exploratory examinations in grade 4, 7 and 10 in all subjects. Boys are more often diagnosed with hyperactivity and dyslexia than girls and receive a substantial proportion of the schools’ special needs education budget. More boys (5 per cent) than girls (2 per cent) in 8th and 10th grade regard their study as pointless.

Results from PISA 2006 (Kjærnsli et al. 2007) show that Iceland is the only Nordic country where girls score considerably higher than boys at all test subjects. In total Icelandic students scored above OECD level (set at 500) in mathematics (506) and below OECD level in science (491) and reading (484). Results from PISA 2003 (Steinthorsdottir and Sriraman 2007) show that Iceland was the only participating country which had statistically significant gender differences in favour of girls.

Girls’ participation rate in upper secondary school is slightly higher than that of the boys. Girls, however, comprise just over 60 per cent of pupils completing the university entrance exam. Women comprise the great majority of compulsory school teachers (75 per cent). In upper secondary school, the majority of the teachers are men (55 per cent). In order to achieve the goals of Education for All, special attention needs to be given to various handicapped children, bilingual students of foreign origin and students at risk of dropping out of upper secondary school, especially boys.

Iceland is relatively culturally homogenous and has no national minorities and only one official language. Therefore Iceland has not the same challenges as many of the other countries in the Arctic region. However, the rural dimension is a challenge for providing equal education for all, both concerning geographic accessibility and quality.

7.4 ICELAND - SUMMARY

Iceland is the only country amongst the ones presented in this report without an indigenous population, and where the population is very homogenous. The main challenge in Iceland seems to be the urban – rural dimension, with out-migration of young people from rural areas creating considerable challenges. However, the latter is also the case with regard to the Arctic regions in the other Nordic countries. With regard to the outcome of the education system Iceland does not have, or at least does not publish, local and regional results from standardised tests. As a country Iceland seems to be scoring around OECD level at PISA, except for reading. However, Iceland is the country where PISA shows systematic statistically significant differences in favour of girls over time.
8 NORWAY

8.1 ABOUT THE ARCTIC NORWAY

Northern Norway comprises the three counties of Nordland, Troms and Finnmark. Major towns in Nordland are Bodø (45,000), Narvik (19,000), in Troms; Tromsø (65,000) and Harstad (23,000), and in Finnmark; Alta (18,000), Hammerfest (9,500), and the county capital Vadsø (6,500). (The numbers refer to the population in the municipality). With the exception of Hammerfest and Vadsø, all these centres have a University college and Tromsø also has a University. The population in the towns is stable and partly increasing, in contrast to the counties in general which are loosing population to the centres and to the southern part of the country. The region is, with the exception of the few centres, characterised by many small communities and long distances. The majority of the Sámi population live in Finnmark (North Sami), but there are also Sámi in Nordland (North, Lule and South Sámi), in Troms (North Sami) and in other counties further south.

8.2 EDUCATION PROVISION IN NORWAY

The municipalities have the responsibility to offer a place in a kindergarten. The kindergartens are both public and private (with state support). In 2006 80.4 per cent of all children aged between 1 and 5 had a place in a kindergarten (SSB, KOSTRA24). 66.5 per cent of the children spent more than 33 hours per week in the kindergarten. In the county of Troms in Northern Norway 85.5 per cent in of the children were in kindergartens while in Oslo 76.9 per cent had a place in a kindergarten. The kindergarten is a pedagogical activity which is obliged to give children under 6 years good opportunities for development and activity. The close relationship with the children’s home is emphasised. It is a challenge to recruit sufficient qualified personnel in some parts of the country, particularly in the rural areas in the north.

The Norwegian education system is quite decentralised, and the Norwegian unitary school system is defined as inclusive with the aim that there must be room for all. Everyone is to be given the same

\[24\] Source of information: http://www.ssb.no/kostra/
opportunities to develop their abilities. The Knowledge Promotion Reform, with its special emphasis on learning, is meant to help ensure that all pupils receive adapted education. The municipalities are responsible for compulsory education (6-16 years), while the county municipalities are responsible for upper-secondary education (16-19/20 years).

All public compulsory education in Norway is free. In the educational reform in 1997, the starting age for children was changed from 7 to 6 years. The compulsory education is now 10 years. Primary school is from 6 to 13 years, and lower secondary school is from 13 to 16 years. Upper secondary education is not compulsory, but with the implementation of the educational reform in 1994 everybody was granted a statutory right to a place in upper secondary education. There are very few other alternatives for young people except education and training, and therefore 96 per cent start upper secondary education, but not everybody complete and leave with vocational or academic qualifications.

Upper secondary education comprises both general academic studies lasting 3 years, preparing students for further studies, and vocational education and training which normally last 2 years in school and 2 years as an apprentice in a private or public workplace, depending on the speciality chosen. 60 per cent of the young people choose vocational education, but there are gender differences. The girls dominate in general academic studies. 46 per cent of the girls and 39 per cent of the boys chose general academic studies (SSB Samfunnsspeilet 2005-04).

At university and university college level, the system has been changed to fit the international education system with Bachelor, Master and PhD. During the last 30 years there has been a significant increase in the number of young people taking higher education. In 1980 about 11 per cent of young people aged between 19 to 24 years took higher education, while the number now is about 30 per cent. In the population aged between 25 and 64, 24 per cent have only compulsory education, 45 per cent have education at upper secondary school level, and 31 per cent have education at university or university college level. The level of education in the other Nordic countries is relatively similar (SSB Magasinet: Slik lever vi 2006-09).

8.2.1 The unitary school system
The idea behind the Norwegian school system is to give everybody the same educational opportunities within the same system and schools. All pupils have the right to an individually adapted teaching, and that is as far as possible catered for within the regular school system. This unitary school represents what can be called an including common culture with emphasis on the nature and the local community, and with an aim to develop and convey the Norwegian cultural heritage. The aim is that the unitary school system shall contribute to the equalization of social differences. One expression of this is that 96 per cent of all pupils are in public schools, and all schools and educational institutions are tuition free. The small number of private schools is primarily denominational or related to particular ideologies and/or pedagogical principles. The majority of these schools are within the Norwegian majority culture.

Classes in school are mixed by gender and social, ethnic and religious background. As the schools primarily recruit children from the nearby areas, the social and cultural composition of these areas is reflected in the schools. In principle there are no special schools for children with special educational needs, but in practice some municipalities have special units that may be characterised as special schools. School-age child-care provision is organized both in the mornings and the afternoons, often located to the school buildings.

In order to make schools accessible, it has been an important aim to place the primary schools where people live. Therefore there have been many small local schools because of the scattered settlement pattern in many parts of Norway. The schools are important social local institutions in rural areas, and in local communities facing depopulation people struggle to keep the local school. As a result of

25 Source of information: http://www.regjeringen.no: Kunnskapsdepartementet
Norway’s scattered population, forty per cent of primary and lower secondary schools are so small that children of different ages are taught in the same classroom. The parents are encouraged to participate in the school related activities, both on parents’ councils, by helping their children with homework and through involvement in activities at school.

The Norwegian ideal of equality can be traced far back in the history of educational politics. The ideal is that all children, regardless of background and abilities, should participate in the same school class. Inequalities are played down and are efforts are made to compensate for them within the unitary school system. The Norwegian educational system is not an elite–school system, neither connected to the pupils’ or students’ abilities nor their parents’ economy. There is more emphasis on local and national traditions and issues in school. The education is aimed at the majority. However, there are currently discussions concerning the balance between an including school and an emphasis on achievement, and the balance between individual freedom and development, and discipline. These discussions also concern general cultural values related to the ideology of equality and the emphasis on the individual.

In a report from PISA 2003, the Norwegian students score relatively low on many of the knowledge based performance indicators (PISA Norway 2003). However, the Norwegian students stand out positively concerning the sense of belonging to school. In addition, the material shows few differences between schools, therefore the regional/ geographical dimension do not influence the measured performances.

The same report from PISA 2003 shows that Norwegian students are very autonomous, and this is perceived as being related to the emphasis placed on teaching of and practising democratic values in school. The Norwegian students stand out as being very conscious about their own rights in addition to having considerable knowledge about democracy. The students also have influence when it comes to planning the year according to the curriculum and choices of issues and assessments.

Norwegian students continued their low results in PISA 2006 (Kjærnsli et al. 2007), and these are results that have caused a lot of public debate and concern both politically and administratively at national level.

8.3 EDUCATION, THE LOCAL COMMUNITY AND THE INDIVIDUAL

Traditionally rural areas in large parts of Northern Norway have been dominated by fisheries and primary industries and the recruitment of young people to the labour market was not primarily connected to formal qualifications from school. Kinship relations and willingness to work was more important than formal qualifications from school in order to get into the local labour market (Heggen et al. 1999). At the same time, formerly, many of the teachers were from the southern part of Norway and the curriculum was not adapted to the everyday life in Northern Norway. In this way the school system was not founded in the everyday life in the local communities and partly considered as something external and a prolongation of the power of the middle class of the Southern part of the country (Høgmo, Tiller and Solstad 1981).

In addition to economical and practical factors related to long distances to the educational institutions, these factors have contributed to a relatively low recruitment to higher education from the Northern and rural areas. During the last decades, however, the employment in the fisheries and other primary industries have been reduced and the welfare state and private services have become more important for providing jobs for young people. This development implies a greater demand of formal qualifications. The educational system has also been developed with more educational institutions in the regions and more teachers are now from regions. Women’s changed position in the family, in the labour market and in society in general is also important to emphasize. These changes have resulted in more recruitment from rural areas to higher education, but it is still lower than the national average, particularly among young men (SSB).
8.4 **THE QUALITY AND OUTCOME OF EDUCATION PROVISION IN NORTHERN NORWAY**

In Northern Norway the general educational level is lower compared to the rest of the country (SSB). Regional differences in the educational level reflect to a certain degree the composition of the labour market. In more central areas of Norway where the concentration of jobs requiring high formal qualifications is high, the educational level in the population is highest and it is lowest in small places in peripheral rural areas where primary and secondary industries and low skilled service jobs dominate. The table below shows percentage of population at different educational levels in the three northernmost counties, compared with the national average.

Table 1 Percentages of population with education at compulsory, upper secondary and higher education level as their highest education level in the three northernmost counties and in Norway.

<table>
<thead>
<tr>
<th></th>
<th>Compulsory education</th>
<th>Upper secondary education</th>
<th>University/college education - short</th>
<th>University/college education - long</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordland</td>
<td>25.7</td>
<td>56.6</td>
<td>15.1</td>
<td>2.5</td>
<td>100</td>
</tr>
<tr>
<td>Troms</td>
<td>22.8</td>
<td>55.0</td>
<td>17.4</td>
<td>4.8</td>
<td>100</td>
</tr>
<tr>
<td>Finnmark</td>
<td>26.2</td>
<td>54.4</td>
<td>16.6</td>
<td>2.8</td>
<td>100</td>
</tr>
<tr>
<td>Norway</td>
<td>20.1</td>
<td>56.4</td>
<td>18.3</td>
<td>5.2</td>
<td>100</td>
</tr>
</tbody>
</table>

As we can see the general picture is that the education level in northern Norway is lower than in the country as a whole. However, Troms is not very much behind the national average, due to the fact that a higher proportion of people in Troms – nearly 60 per cent - live in urban areas (the municipalities Tromsø and Harstad), compared to the other counties in northern Norway. The establishment of the University of Tromsø in the beginning of the 1970ies has impacted considerably on the education level in Troms.

The average results from exams for the compulsory school in Finnmark, the northernmost county, are lower compared to other counties. These regional differences have persisted for decades and still do. A study focusing on this situation, discusses factors influencing the children’s school achievements (Skålnes et al. 1999). The authors point to three different factors. The first is related to insufficient coverage of qualified teachers and a relatively high turnover of teachers. This is particularly relevant for the Sámi schools. The second is the pupils’ relatively low motivation for school work which is partly explained by insufficient support from parents. More parents in Finnmark as compared to parents in other parts of the country seem to accept low achievement from their children and do not regard a high level of formal education as important or relevant for the labour market. The third factor is linked to the dynamics of the school system which have no incentives for the pupils to make efforts, because they are guaranteed a place in upper secondary education.

Low achievements in school are also related to drop-out and delayed completion of upper secondary school. A study of drop-out and temporary and permanent school leave in upper secondary education in the county of Nordland (Wiborg and Rønning 2005) and Troms (Karlsen et al. 2005), showed that the drop-out rate in the three northernmost counties in Norway is higher as compared to the national average, and the degree of completion lower compared to the rest of the country, but with some exceptions for the county of Nordland where students seem to manage to complete with qualifications if they remain in school. This is documented in the table below.

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26 The three tables presented in this section is taken from Karlsen et al. 2005. The figures were collected from [www.ssb.no](http://www.ssb.no) in 2005.
Table 2. Percentage of students who have quit school and percentage of students who have completed upper secondary courses at different levels by county and nationally. Figures from 2004.

<table>
<thead>
<tr>
<th></th>
<th>Nordland</th>
<th>Troms</th>
<th>Finnmark</th>
<th>Norway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who have quit</td>
<td>5.9</td>
<td>5.4</td>
<td>9.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Results:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students who have completed Year 1</td>
<td>74.1</td>
<td>72.7</td>
<td>62.0</td>
<td>75.0</td>
</tr>
<tr>
<td>Students who have completed Year 2</td>
<td>80.1</td>
<td>73.2</td>
<td>65.3</td>
<td>80.4</td>
</tr>
<tr>
<td>Students who have completed Year 3</td>
<td>77.1</td>
<td>66.2</td>
<td>54.9</td>
<td>76.3</td>
</tr>
</tbody>
</table>

There are however considerable differences between individual schools and study programs. The drop-out rate is higher in vocational training than in the academic preparatory courses. Important factors are the students’ motivation and school achievement grades/marks which differ between courses.

In Northern Norway the size of upper secondary schools vary between 1000 and 100, and sections down to 30 students. The smallest schools are located in rural areas. The size of the school is not a good indicator for drop-out rate. The small schools show either very positive or very negative results. The scores of small schools are easily influenced by how a small number of pupils and teachers perform in school. Small schools can in this way be more exposed to accumulation of both positive and negative factors concerning the students’ motivation and individual situation, the teachers’ abilities, and the interaction between teachers and students.

In a study of students in upper secondary school, Markussen and Sandberg (2004) conclude that the students’ social and cultural background have very significant influence on the students’ school performances. An example of this is that whether the students’ complete upper secondary education within the standard time available is strongly correlated with the parents’ education level, something which is documented for the three northernmost counties in the table below (Karlsen et al. 2005). As we can see from the table, only about one fourth of the students in Nordland and Finnmark whose parents have compulsory education as their highest level of education manage to complete upper secondary education within the time that has been made available to them, while the corresponding figures for students with parents who have higher education are more than doubled.

Table 3. Throughput (Gjennomstrømming)\textsuperscript{27} within upper secondary education by parents’ educational level and by county and nationally. Percentages. Figures from 2004.

<table>
<thead>
<tr>
<th>Kategori elever</th>
<th>Nordland</th>
<th>Troms</th>
<th>Finnmark</th>
<th>Norway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students of parents with only compulsory education</td>
<td>26.8</td>
<td>42.7</td>
<td>22.7</td>
<td>35.9</td>
</tr>
<tr>
<td>Students of parents with upper secondary level</td>
<td>42.1</td>
<td>52.0</td>
<td>35.4</td>
<td>53.2</td>
</tr>
<tr>
<td>Students of parents with higher education</td>
<td>63.1</td>
<td>66.6</td>
<td>53.8</td>
<td>72.8</td>
</tr>
<tr>
<td>The whole group</td>
<td>47.0</td>
<td>56.1</td>
<td>39.6</td>
<td>58.8</td>
</tr>
</tbody>
</table>

Markussen and Sandberg (2004) have not been able to identify factors related to the teaching situation which have a significant effect on drop-out or school attainment. However, Markussen and Sandberg (2004) do not discuss how the same teaching system can be experienced differently according to differences in social and cultural background.

Students who have dropped out of upper secondary education and training are monitored by the so-called “follow-up” service. In 2007, 18 per cent of the Norwegian youths with a statutory right to upper secondary had been reported to the follow-up service; the numbers for the three northernmost

\textsuperscript{27} The indicator defines percentages of students and apprentices who started their first year in upper secondary education five years ago and who have qualified within the standard number of years. At the time when the statistics were produces, five years was the maximum time available for completing upper secondary education.
counties were 24 per cent in Nordland, 25 per cent in Troms and 28 per cent in Finnmark (Utdanningsspeilet 2007).

The cost of academic upper secondary education per student varied from NOK 86,000 to NOK 123,000 in 2007. Finnmark had the highest level of spending per student (ibid.). The spending per student in vocational training programmes varied from NOK 109,000 to NOK 142,000 in 2007. Troms had the highest level of spending for vocational training.

Adults who have not managed to complete upper secondary education are entitled to a place if they have not had the opportunity to complete as students with a statutory right previously. Adults who have had this right, but have failed, can get a place if there is one available. The county municipalities are responsible for this and provide a variety of ways to study, including many distance education courses based on using electronic tools. In 2007, more than 55,000 adults in Norway applied to be included in upper secondary education, and 68 per cent of these were given a place. The corresponding percentages for the three northernmost counties are 50 per cent in Nordland, 72 per cent in Troms and 73 per cent in Finnmark (Utdanningsspeilet 2007).

With regard to children who get special needs education in upper secondary education the percentages differ much from county to county

8.5 THE SÁMI POPULATION

The culture and traditions of the Sámi community are part of the common Norwegian and Nordic culture. The Norwegian national curriculum, LK06, requires that all pupils should become well acquainted with Sámi history and culture and the current situation in the areas where the Sámi live. In areas defined as Sámi districts, and according to specific criteria elsewhere in Norway, this teaching is given in accordance with the Sámi curriculum – LK06-S. A separate Sámi curriculum was first introduced in 1997. In 2000 the jurisdiction over the Sámi Educational Council was transferred from the Norwegian Department of Education to the Sámi Parliament.

State support is provided for the development of textbooks written in the Sámi language. The Sámi College has special responsibility for training Sámi teachers. The University of Tromsø has responsibility for the Sámi language and Sámi studies (www.regjeringen.no).

In a study concerning educational choices in a Sámi area, the theoretical emphasis in upper secondary education, including vocational training, is discussed as a factor influencing a relatively high level of drop-out (Eide et al. 2007). In areas dominated by primary industries, more students choose vocational education and training. The emphasis on the theoretical aspects increases the risk for drop-out, not due to educational motivation as such, but due to how the subjects are taught and the kind of knowledge which is emphasised. Even if the new curriculum, LK06, is supposed to be more oriented towards adapting the curriculum and teaching to the individual pupil, the teachers are not confident that they will have the capacity to achieve this in addition to all the other tasks they have to attend to (ibid.). They feel that they do not have enough time and resources to do what they would like to do in order to follow up individual pupils. This shows some of the dilemmas teachers experience concerning implementing the intentions of the curriculum in practice.

The study also addresses the question about statistical data concerning educational achievements for students with Sámi cultural background. In Norway there is little public, national statistics about youth in the educational system broken down into groups with different ethnic backgrounds. This might be related to the fact that ethnic background is considered sensitive data. In the three northernmost counties in Norway, there is no statistical information showing the ethnic background for students dropping out of upper secondary school. One important question relates to who is considered to be

28 The Norwegian curriculum implemented from 2006 is called Læreplan Kunnskapsløftet, abbreviated LK06. The Sami curriculum is Læreplan Kunnskapsløftet Samisk, abbreviated LK06-S.
Sámi, and who can decide who is Sámi? Ethnic identity is on the one hand subjective and on the other related to a more objective criterion; having Sámi-speaking parents or grandparents (www.sami-statistics.info). However, not all people with Sámi-speaking parents and grandparents consider themselves as Sámi, and some may have rather ambivalent attitudes towards their Sámi background (Høgmo 1989). Having a Sámi ethnical background can influence the meeting with the educational system in a variety of ways. For example, depending on the geographical context, the Sámi can either represent the majority, as in some municipalities in Finnmark, or be the minority, as in most other municipalities where they live. Not all considering themselves Sámi speak Sámi.

The South Sámi is a minority within the Norwegian Sámi population, and a study investigating the situation regarding the teaching of South Sámi language shows that there are considerable challenges with regard to recruitment of teachers, production of teaching resources and, not least, the provision of a language environment where South Sámi is used as the common language of communication (Rønning 2005). The study also shows that being a minority within the minority accelerates these challenges.

**8.6 NORWAY – SUMMARY**

In line with the other countries in the Arctic region out-migration of youth from rural northern areas is posing considerable challenges also in Norway. Other challenges are related to a lower education level in Arctic Norway as compared to the rest of the country, higher drop-out rates in particular in Nordland and Finnmark, and problems with regard to recruiting qualified teachers in particular in rural areas. A lower educational level mirrors the labour market in these areas, where primary industries such as fishing has been a central source of income and a lot of the income has been related to export of raw material. Also, due to economic constraints in the municipalities, a relatively decentralised school system with regard to compulsory and upper secondary education has been under attack for the last 20 years. With regard to the Sámi population there are specific challenges related to production of teaching materials in the Sámi languages, and also related to recruitment of teachers with Sámi language and culture competence. Being a minority within the minority, the South Sámi population has particular challenges with regard to the provision of an equitable education.
9 RUSSIA

9.1 ABOUT RUSSIA

The Russian Federation covers a territory of more than 17 million square kilometres. Its population constitutes 146 million people. The Federation comprises 89 subjects or regional authorities which include 21 republics, 52 oblasts, 6 krais and 10 autonomous okrugs. In Russia there are 1095 cities, 1963 settlements of urban type and 24456 rural settlements.

Extending nearly halfway around the world, Arctic Russia stretches over two continents and nine time zones. Russia's Arctic area shares borders with Norway and Finland in the west, and extends east through Siberia to the Bering Sea. The Chukotka peninsula almost touches Alaska across the Bering Strait. Alaska is a former Russian possession which was sold to the USA in 1867. Although the Arctic portion of Russia covers a vast area, the population is sparse in most areas. The population includes both indigenous groups such as Chuckhy, Nenet, Evenki, Inuit, Sámi and Yup’ik and newcomers who have come to the Arctic to work in the industries centred around natural resources.

The area is rich in metals, coal, petroleum and natural gas. The biggest city in Arctic Russia is Murmansk with a current population of between 300,000 and 350,000, a decrease of more than 100,000 since 1990. Norilsk, another large city in Arctic Russia is the northernmost city in Siberia and the world's second largest city above the Arctic Circle. Norilsk and Yakutsk are the only large cities in the continuous permafrost zone. Norilsk is also the northernmost city on the planet with a population over 100,000. Population is estimated at 230,000 in 2008. The living conditions in Northern Russia are generally worse than in the rest of the country. The level of education is lower, the health conditions worse and the unemployment rate higher as compared to southern parts of Russia.

9.2 INDIGENOUS PEOPLES IN NORTHERN RUSSIA

30 indigenous peoples live in Arctic Russia, with a total population of approx. 210,000. All these peoples are relatively small in numbers, ranging from 350 for the Enets to nearly 30,000 for the

Nenets and approx. 27,500 for the Evenkis. These indigenous peoples do not only live in the very northern regions of Russia, but also in the Far East and in Siberia, but as a group they are often referred to as the “peoples of the Russian North” (Hairullin 2006).

The majority of the indigenous peoples of the Russian North live in villages close to their traditional land use areas, where they pursue traditional subsistence activities like reindeer-herding, hunting and fishing. However, large areas of their land are now being used for industry, forestry, mining and oil production. Indigenous peoples have strong ties to their natural environment and their cultural identity is dependent on intact ecosystems. This explains the difficulties indigenous peoples have had when trying to adapt to “modern ways of life”, and the social difficulties caused by the state's attempt to settle nomads, erode traditional social structures and rebuild them as a part of the Soviet system. Russia's recent socio-economic problems led to a break-down of supply and transportation systems in remote areas. Having been made dependent on modern infrastructure and product distribution, many indigenous people have found themselves left alone with rising mortality and lacking supplies, lacking medical care and without the economic means and legal expertise to deal with the situation (npolar.no/anspira).

The language situation in the north in general can not be characterised as a simple one, and negative trends are dominant (Hairullin 2006). The vitality of the northern languages is threatened by the following factors:

- Destruction of the traditional collectives that used the language in question as their only means of communication. The destruction is a result of integration of new settlements.
- Active influence of the Russian language caused by influx of Russian speaking population to northern regions and the spread of mass media in Russian language.
- Schools that transfer to Russian language as the means of instruction and the development of boarding schools.

Resulting from this, the number of indigenous people who considered their own language as native language decreased from 75 per cent in 1959 to 53 per cent in 1989.

9.3 EDUCATION PROVISION IN NORTHERN RUSSIA

Pre-school is compulsory for children from the age of 5. In 2003, 92 per cent of all 5-year olds attended pre-school institutions (ADHR). General education in the Russian programmes comprises eleven years of studies. Children start at the age of 6-7 and students normally finish secondary general education at the age of 17-18. Compulsory basic general education in Russia lasts for nine years.

The Russian educational system has become decentralized, and educational institutions are under regional authority with extensive rights (ADHR). Russian schools now devote 75 per cent of the curriculum to federally defined subject content, with the remaining 25 per cent concerned with region and school specific content. In practice, each school designs its own curriculum, basing it upon the Basic Curriculum. The regionally defined content provides opportunities for indigenous cultural revival, for example the development of indigenous history courses. However, the indigenous population is relatively low; 2-3 per cent of the total population, and a challenge concerning these indigenous peoples is that there are many different languages at the same time as the size of the groups are very variable (see Section 9.2 above). However, there is an increased accommodation of the needs and interests of students by creating educational plurality. There are efforts to develop new textbooks, manuals and teaching aids, in particular for indigenous institutions to support ethnic and cultural aspects of core subjects. Due to remoteness of schools in Northern Russia, new information technologies and distance education are becoming increasingly attractive options and could provide exciting opportunities of education development processes if the infrastructure is made available.

Main source of information for this section: www.russia-ic.com/education_science/education/system/103
General Elementary Education is the first stage of general education and starts at age 6. In the Russian Federation general elementary education is compulsory and open to the public. The federal component of the state standard of general elementary education is currently undergoing changes and a new personality-oriented model of mass elementary school has been developed. The federal component of the state standard of general elementary education lists a number of compulsory core subjects, amongst them Russian Language, Literature and Reading. This subject has two variants for schools, one for schools teaching in Russian and one for schools teaching in native (non-Russian) language.

General Secondary Education is the second and final stage of compulsory education and is also free and open to the public. Since it is the final stage of compulsory education in the Russian Federation, one of the major requirements for this educational stage is that the students should be achieving functional literacy, which is essential in modern society, in mathematics and natural sciences, as well as in sociology and culture. The federal component of the state standard of general secondary education lists a number of compulsory core subjects and similar to the general elementary education stage, the Russian Language course has two versions also at this stage, one for schools teaching in Russian and one for schools teaching in native (non-Russian) language. The stage of general secondary education ends with compulsory final state examinations. The examinations are developed on the base of state standard requirements to the graduates' level of training.

General Senior Secondary education is the third and final stage of general education in Russia and is also open to the public according to Russian Federal Law. This stage is, however, not compulsory. The senior stage of general education school is currently undergoing the most serious structural, organizational and conceptual reassignments due to the education modernization process. Educational courses at this stage have two levels - basic and subject ones. Both levels belong to general education system, but are oriented on decision priorities of different groups of tasks. The basic level of the educational course standard is oriented on formation of common culture and is linked mostly to the socialization tasks of general education - view of the world, education and progress. The subject level of the educational course standard is chosen according to the personal preferences and affections of a student and is oriented on his preparations for further professional education or professional occupation. The students who finish the stage of general senior secondary education and fit the requirements for graduates' training level, have a right to continue their training in educational institutions of primary, secondary and higher professional education.

Over the last few years several hundred private schools have been established, but we have not been able to find information about the percentages of students attending these private schools.

With regard to postsecondary education there are a number of institutions in the arctic regions of Russia with such provision. In the bigger cities of there are universities and other institutions of higher education. Many of these are members of the University of the Arctic which is a network of universities, colleges, and other organizations committed to higher education and research in the North (www.uarctic.com).

9.3.1 Education provision for indigenous people

Against the backdrop of a generally difficult situation in Russia in the 1990ies, the Northern regions were in a particularly disadvantaged position. In regions inhabited by the indigenous population, there were 794 schools with 38,714 students of indigenous peoples at the beginning of the school year 1996-97. 50 per cent of these students learned native languages. Also there were 7 nomadic schools where education in pre-school and at first grade was conducted in native languages. There were 39 boarding schools with 11,995 pupils, while 6,117 students studied in 171 small schools organized at the location of the parents' professional activity. In addition, there were 18 high schools and colleges where 6,751 students got professional education.
For different reasons, admission of indigenous peoples to the institutions of higher education decreased considerably in the 1990ies. In the period from 1991 to 1995 there was a plan to admit 1240 students, but only 966 were admitted. At the same time admission to the secondary special pedagogical educational institutions, the high schools and colleges, increased considerably (Hairullin 2006).

Hairullin\textsuperscript{31} (2006) lists a number of priorities that must be met when working to improve the education systems for the indigenous people in the north:

\begin{quote}
Reforms in pre-school education for indigenous peoples of the North must begin with the following main ideas:
\begin{itemize}
  \item revival and preservation of ethnic languages, cultures and literatures,
  \item reinforcement of the significance of Russian and foreign languages,
  \item equal start opportunities for the child of any ethnic region,
  \item common cultural-educational space.
\end{itemize}

...Studying the native language is a task of paramount importance, since many pre-school age children are taken away from their parents at an early age (because of the specifics of their labour - reindeer breeding, hunting, fishing etc.). They do not hear their native speech. Communication occurs in Russian, but the speech of children is far from literary standards. As a result, children entering the school speak both native and Russian languages poorly.
\end{quote}

With regard to the secondary education system Hairullin claims the following:

\begin{quote}
...It must pursue the following purposes:
\begin{itemize}
  \item taking into consideration the needs of society in the development of ethnic cultures and languages,
  \item preserving the succession of generations, revival of traditional occupations of northern peoples,
  \item preserving common educational space.
\end{itemize}

In accordance with the social-economic development of northern regions, social-cultural tenor of life of different peoples, ethnic minority schools in rural regions can and should be functionally adapted to local conditions: small-complete, mobile, nomadic and semi-nomadic (for ethnoses with nomadic and semi-nomadic way of life). Nomadic schools must choose absolutely a curriculum other than schools providing general education and must correspond with life cycles natural for the northerners. The main purposes of nomadic schools are:
1) free communication on native language,
2) acquaintance with the spiritual culture of own people,
3) knowledge of folklore and song art of the people,
4) knowledge of traditional economic management (reindeer breeding, hunting, fishing),
5) knowledge of ecology of the region and its protection, knowledge of physiology and health care.
\end{quote}

Hairullin also addresses the issue of boarding schools:

\begin{quote}
The attitude to boarding schools at present is ambiguous. At a particular stage, the boarding schools helped liquidate illiteracy. This favoured the appearance of writers, musicians, artists, scientists, technical intellectuals among the peoples of the North. At present the younger generation of northerners have forgotten their ethnic traditions, customs, material and spiritual culture. They forget age-old professions and trades. Reindeer-breeding, hunting and fishing became not prestigious. And all these troubles more and more often acre caused by the boarding school system. It is unreasonable to abolish completely the boarding schools (in
\end{quote}

\textsuperscript{31} Hairullin is the deputy director of the Institute for Regional Education Development in Moscow.
boarding schools pupils are on total state maintenance and parents are free of caring for their children). It is necessary to reform boarding schools, and in this case they will be able to carry on their educational functions for a while. Reforming of boarding schools can go in the following way:
1) Changing the dates of instruction in accordance with life cycle of northern peoples,
2) Development of those types of boarding schools that presented themselves in a good light (for instance, household type),
3) Changing the content of education by increasing a share of traditional culture.

9.4 THE QUALITY AND OUTCOME OF EDUCATION PROVISION IN NORTHERN RUSSIA

The information we have found regarding the quality and outcome of education in the northern parts of Russia addresses the question of indigenous people as compared to the rest of the population. It has not been possible to acquire more general information about northern regions as compared to southern regions in the country.

9.4.1 Bi-cultural education in the north

As a result of a conference in Germany in 1997, a number of papers on the development of indigenous languages and the education provision for indigenous peoples in northern Russia and other Arctic regions were published (Kasten 1998). Short summaries of some of the findings presented in these papers are given below.

Vakhtin (1998) focuses on the region of Chukotka (see more information on this region in Section 11.2) and claims that all indigenous languages of Chukotka are endangered. By endangered he means the following: languages which are no longer being learned by children or no longer transmitted by parents to their children in a traditional oral manner. He claims that even the languages in the region that are in relatively good shape are being influenced by Russian language to such an extent that they are becoming dramatically changed. However, he claims that opposition and resistance to the dominant culture may result in ethnic groups starting to build a new identity using what remains of the culture. As part of this process they may start building a new language for groups where the language of the ancestors have been forgotten, based on the language the group speaks. He refers to an example of this in North-East Siberia where the language of Chuvanski has undergone such a transformation.

Kaloimova (1998) tells a story of the revitalisation of language among the Itelmen people. The Itelmen is a north-eastern Paleoasiatic people, and a census from 1979 stated that there were 1,002 Itelmens at the time. They are settled, i.e. not nomadic people, living in the Kamchatka oblast. For 40-60 years during the Soviet period the Itelmen language was not passed on from parents to children, but in the 1970is people began studying the language in schools again. Kaloimora tells of the revitalising of the language and culture in the decades since the 1970ies.

Tarasova (1998) tells the story of the Even language and how it is taught in school and how schools work to develop material such as textbooks that support the revitalisation of indigenous languages and cultures in school. She claims that Russia is at a turning point in history where gradually much more attention is being paid to developing various aspects of the living conditions for the people in the north.

Ventsel and Dudeck (1998) have studied the situation in the Khanty-Mansi Autonomous Region and claim that the region has been exploited because of its rich oil and gas resources. The resources have caused a huge influx of Russian speaking people and a forced industrialisation and urbanisation which has caused a marginalisation of indigenous people in the region where people traditionally lived off fishing, hunting, reindeer herding and gathering of other natural products. Traditionally, the educational system was established and controlled by the state, i.e. the federal government. They refer to the fact that education is controlled by two different educational departments. High school education for indigenous children is the responsibility of the Department of the People of the North,
while the Department of Education administers continuous education for school drop-outs. Their study shows that neither of these departments had native speakers, and Ventsel and Dudeck also claim that officials within these departments were prejudiced against the indigenous populations.

Ventsel and Dudeck show that even though some measure may have been put into practice to allow children to learn their native language, there are huge challenges. Officially, Khanty language belongs to the 66 so-called “favoured” languages (out of a total of 183 languages in Russia) in the Russian federation and is therefore taught in school. However, what is actually taught might not be the language that the children’s ancestors speak. The education overlooks the fact that Khanty has several dialects and that the teachers in many cases speak the ‘other’ dialect and therefore teach the ‘wrong language’. Finally, Ventsel and Dudeck present some alternative models for indigenous education which is being developed currently in Khanty-Mansi region.

9.5  RUSSIA – SUMMARY

Arctic Russia covers a huge area with some big cities but with a lot of small, and, in some cases, rather isolated settlements. The big cities were developed as a result of the industrialisation and urbanisation efforts that in particular took place during the Soviet era. The situation for the northern areas has worsened since the disintegration of the Soviet Union, resulting in severe depopulation in some areas. Also, the current living conditions are generally worse in Northern Russia as compared to the south. The education level is lower, the unemployment rates are higher, and there are challenges with regard to health care and education.

There are a number of indigenous peoples in Arctic Russia. These went through a severe marginalisation process during the Soviet period, due to heavy urbanisation and industrialisation of areas where they traditionally lived and made their living from traditional activities such as herding, fishing etc. Some of the indigenous languages are in danger of being lost. However, there is a heightened focus on the situation for the indigenous peoples of the north, and there are development efforts in place with the aim of trying to improve the provision of education regarding indigenous languages and cultures. Still, considerable challenges remain, in particular regarding recruitment of teachers with indigenous background and language competence, development and provision of teaching materials for the teaching of indigenous languages and cultures etc.
10 SWEDEN

10.1 ABOUT ARCTIC SWEDEN

The Arctic region in Sweden comprises the counties of Norrbotten and Västerbotten. These counties both have rather large university cities like Umeå (112,000) and Luleå (45,000) and a number of small communities, coast and inland. Particularly in the inland, there are many small communities and large distances between them. Umeå has a young population and is among the fastest growing cities in Sweden, while the rural communities are generally characterised by out-migration and an ageing population. Because of this there are large internal differences within the Arctic region of Sweden.

Source of information: www.worldatlas.com/webimage/countrys/europe/semaps.htm

Waara (2003) claims that Northern Sweden is characterised by centralisation and shows that in the smallest municipalities there is a decline in population, a lower share of young people, a lower share of young people in higher education and the highest unemployment rates compared to the rest of the country. However, the regional dimension does not seem to be central in the Swedish public discourse. According to Waara (ibid.) there is little research which specifically focuses on young people in rural areas, and in the official national reports from Skolverket the geographical north-south is not a dimension that is discussed much in relation to differences in pupils’/students’ performances, differences in quality of teaching, local adaptation of curricula, or other factors with importance for the Education for All objectives. The factors discussed in this context are related to social and cultural background, including migration, and gender, but these factors are not to any extent analysed in a geographical context.

10.2 EDUCATION PROVISION IN SWEDEN

The aim for Swedish education policy is that Sweden should become a leading knowledge nation characterised by high quality education provision and life long learning (Skolverket 2007:303). Skolverket is worried about national and international studies that show that the students’ level of
knowledge has been reduced during the last years. The importance of qualified teachers is emphasised and concern is expressed about the fact that there are many unqualified teachers in school.

Pre-schools are open to children from one to five years old. The pre-school classes offer non-compulsory education designed to prepare children for compulsory education. Its objectives are to stimulate each child's development and learning and provide a platform for their future schooling. Sámi children have the possibility to attend a pre-school for Sámi children. Pre-schools have had their own curriculum since 1998 and represent the first step in the Swedish coherent education system for children. The pre-school class combines the pedagogical methods of the pre-school with those of compulsory education. Municipalities have an obligation to provide pre-school provision for pupils whose parents work or study. Today almost all children attend non-compulsory pre-school class from the age of 6.

Compulsory education comprises nine years of schooling for children aged 7 to 16. Compulsory education includes the regular compulsory school, the Sámi school, the special school for deaf children and children with severe hearing impairments, and the special school for pupils with mental impairments. Post compulsory education includes general upper secondary education and the upper secondary education provision for pupils with learning difficulties. All education in the public school system is free of charge. There is usually no charge for school meals, health services or transport.

Most children attend a municipal school close to their home. The municipality is responsible for undertaking educational activities within the frameworks set by the state in the Education Act, national curricula and other ordinances. The municipality has great freedom to determine how the school system is to be organised for the national goals to be achieved. The municipality is also responsible for schools being given the resources and conditions they need to provide education that is equally good throughout the country. The municipality is also in charge of the follow-up and evaluation of schools.

Apart from the special schools mentioned above, other children who need special support generally attend ordinary classes in the nine-year compulsory school and high schools. School-age child care for school children is provided for children including the age of 12. Municipalities are required to provide childcare for school children whose parents study or work and for children with particular needs for this kind of care.

A common curriculum is used for all the versions of compulsory education mentioned above. The most recent curriculum for compulsory education (Lp94) was implemented in 1994 and amended in 1998 to include pre-school provision and school-age child care. The curriculum states the schools’ fundamental values and basic objectives and guidelines. There are also nationally approved syllabi for the individual subjects. An important objective is that the pre-school class, compulsory education and school-age child care should be more closely linked and that the activities should be stimulated by the encounter between differing pedagogical traditions. The municipalities are responsible for creating their own curricula on the basis of the national curricula, and the regulations state that the following elements should be included in the total curriculum:

- A national syllabus for each individual subject.
- A national time schedule which states the minimum guaranteed time that pupils are entitled to teacher-led instruction in the various subjects.
- A municipal school plan that shows how the municipality's schools are to be organised and developed.
- A local work plan for each school, which is an adaptation of the contents of the national curriculum, the syllabi and the school plan to the organisation, work methods and local circumstances of that school.

In 2005 about 7 per cent of the pupils attended a so-called independent, or private, school. Education in the independent schools has the same basic objectives as public schools, but may have a different religious or pedagogical profile.
10.3 THE SÁMI POPULATION

Sámi children can attend a Sámi school that covers the grades 1-6 and corresponds to the first 6 years of compulsory education. The national school system regulations regulate the Sámi schools as well, but the municipal school plans do not apply to the Sámi schools. Instead the Sámi schools develop their own plans. There is a special Sámi school board that provides for Sámi schooling in the Sámi areas. In the Sámi school the curriculum is the same as in the comprehensive school, plus the Sámi language. For grades 7 to 9 the Sámi children attend municipal schools and can continue the language studies as part of their curriculum. Sámi language programs are offered at all levels. An agreement between the local education authority for Sámi schools and the municipality is a requirement when offering integrated education in Sámi. There is however a lack of educated teachers with knowledge of Sámi language and culture (ADHR 2004). There are no specific training programmes for Sámi teachers in Sweden, but the teachers are usually Sámi themselves and have taken regular teacher education.

10.4 QUALITY AND OUTCOME OF EDUCATION PROVISION IN NORTHERN SWEDEN

Skoleverket (www.skolverket.se), the Swedish National Agency for Education provides statistics and publications regarding quality and outcome in Sweden. Generally, in line with Waara’s (2003) claim, the regional/county level is not focused much in the publications provided. This is probably due to the fact that both compulsory education and upper secondary education is the responsibility of the municipalities. However, some statistics are available at county level and will be presented briefly below.

When pupils graduate from compulsory education, a common grade for the three subjects Swedish, maths and English is calculated. The national average was 205.8 in the school year 2006-07, and both the two northern counties were above the national average; Västerbotten with a score of 208 and Norrbotten with a score of 207.4. However, there are major differences between girls and boys both at national and county level. In Norrbotten girls scored 223.9 and boys 191.6, while in Västerbotten the differences were a bit less – 221.3 for girls and 196.0 for boys. The national average for girls was 217.4 and for boys 194.8. With regard to the amount of pupils who did not meet the standards in one or more subjects, the two northern counties also had better results than the national average. The percentage of pupils who could go on to upper secondary education is higher in both counties – 92.0 per cent in Västerbotten and 89.2 in Norrbotten, compared to the national average of 88.7.

Statistics regarding youth born between 1980 and 1986 show that only 0.4 per cent in Västerbotten and 0.6 per cent in Norrbotten did not start post compulsory education of some sort, compared to a national average of 0.7 per cent. Out of the ones who did start, data from 2007 showed that at national level 20.7 per cent of the girls and 26.5 per cent of the boys had still not achieved final qualifications either because they had dropped-out or because they had completed but had not met the standards in one or more subjects. The figures for Västerbotten are better than the national average – 17.1 per cent for girls and 23.2 per cent for boys, while Norrbotten is in a slightly worse situation with 22.2 per cent of the girls and 30.1 per cent of the boys without final qualifications from upper secondary education. A report based on these results, conclude that there are no clear geographical patterns with regard to where youth who drop-out or who do not manage to receive final qualifications, live. Municipalities with a very high percentage (> 40 per cent) are found both in urban and rural counties. Among the municipalities with more than 40 per cent without formal qualifications from upper secondary education, 3 of these are in Norrbotten – Haparanda, Jokkmokk and Arjeplog. The report also refers to the fact that there are very high differences between boys and girls in some of the northern municipalities, and refers specifically to three of these municipalities, Sorsele, Bjurholm and

32 Source of information: www.skolverket.se/sb/d/1763/a/12156
Jokkmokk. A further analysis of differences within the northern counties based for instance on the rural-urban dimension, on factors related to the labour market, or on other central variables, would have been interesting, but time constraints has made this impossible to conduct.

10.5 SWEDEN – SUMMARY

Rural Sweden, and in particular, the rural north went through a severe centralisation process some decades age, resulting in a relatively centralised northern Sweden. A major challenge in the northernmost counties in Sweden is depopulation, in particular in rural areas, and in particular related to out-migration of young people, resulting in an ageing population. Also the northernmost areas have higher unemployment rates and a smaller part of the youth population that goes into higher education as compared to southern areas.

In spite of the above mentioned challenges, the regional dimension does not seem to be in the forefront of public debate in Sweden, resulting in lack of available research material which is broken down to regional and local level. However, available statistics show that there is no basis for concluding that the two northernmost counties are in a worse condition with regard to transfer to post compulsory education or completion of upper secondary education. However, there may be differences within these counties based on the urban-rural dimension or other factors, but time limitations have prevented us from compiling and analysing statistical data that could have contributed to answering such questions. With regard to the Sámi population there is no separate curriculum, but the Sámi schools can develop their own curriculum based on the national one. The Sámi schools in Sweden also face difficulties regarding recruitment of teachers with Sámi background.
11 RESEARCH ACROSS THE ARCTIC REGION

11.1 NORDIC SCHOOL BAROMETER AND PISA

In the Nordic School Barometer 2000, the central aim for the study was to capture a general assessment of the education provision by asking how much confidence the pupils and their parents had in compulsory school and further education (Nyyssölä 2005). On the average, about half of all the parents in the Nordic countries answered that they had confidence in the schools. Finnish parents are most confident (over 70 per cent), while Swedish parents are the least confident (less than 40 per cent).

In the PISA 2003 study, Finland was on the top level, Sweden was just above the OECD level, Norway was a bit below the average, and Russia at the lowest level of the countries in the Barents region (Ahonen et al. 2008). When it comes to school satisfaction, however, Finland’s score is among the lowest in Europe. In the WHO study in 2002 (Välimaa and Danielsson 2004), Norway was in second place for school satisfaction, while Sweden was on the average, Russia was below average, while Finland was at the lowest level. In Norway and Finland there seems to be an inverse correlation between school satisfaction and school results as measured by the PISA 2003 study.

11.2 SLICA

11.2.1 Introduction

The Survey of Living Conditions in the Arctic (SLiCA) is a partnership of indigenous peoples and researchers from the United States, Canada, Greenland, Norway, Sweden, Finland and the indigenous peoples of the Kola Peninsula and Chukotka in Russia. Major findings to date are based on data concerning Inuit people of Canada, Greenland, Alaska, and indigenous peoples of Chukotka. Over 7,000 interviews form the basis for SLiCA results. The results can, according to Poppel et al (2007), be generalized to all indigenous adults living in the three Inupiat settlement regions of Alaska, the four Inuit settlement regions of Canada, all of Greenland, and in the Anadyrskij, Anadyr, Shmidtovs, Beringovskij, Chukotskij, Iujl’tinskij, Bilibinskij, Chaunskij, Providenskij, Uel’Kal’ districts of Chukotka. The intent of SLiCA is also to document living conditions in Sámi settlement regions in Norway, Sweden, Finland, and in the Kola Peninsula. However, a lack of funding has delayed field work. In spite of this about 300 interviews have been completed in Sweden and Norway, and these will be the basis for a proposal to complete work in Sámi settlement regions (ibid.).

Below we will highlight some findings from the SLiCA-report that we consider relevant for the EFA project. We have selected the following set of variable regarding education provision:

- Highest level of education completed
- Participation in pre-school or kindergarten
- Schooling outside community
- Education and living conditions
- Indigenous culture in education

11.2.2 Educational level/attainment

There are substantial differences between the four countries regarding educational attainment among Inuits. The proportion with vocational school or college is highest in Greenland, and lowest among Inuits in Canada (Poppel et al. 2007a, table 553).

Poppel et al. (2007b, table VII) find that people who live in villages perform more subsistence activities and are more likely to be fluent in their native language than people living in towns and cities. In towns and cities, people have higher levels of formal education and are more likely to be
employed. This goes for all four countries. The educational level seems to be a bit higher in rural parts of Chukotka compared to rural parts of the other three countries, whereas the difference between rural and urban inhabitants in educational level is smallest in Northern Alaska.

### Education Table 553: Highest Level of School Completed by Country

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>Greenland</th>
<th>Chukotka</th>
<th>Alaska</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary or less</td>
<td>44%</td>
<td>10%</td>
<td>26%</td>
<td>13%</td>
<td>22%</td>
</tr>
<tr>
<td>Some high school or in high school now</td>
<td>26%</td>
<td>34%</td>
<td>0%</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>High school</td>
<td>13%</td>
<td>10%</td>
<td>32%</td>
<td>46%</td>
<td>19%</td>
</tr>
<tr>
<td>Vocational school or college</td>
<td>16%</td>
<td>46%</td>
<td>42%</td>
<td>25%</td>
<td>38%</td>
</tr>
</tbody>
</table>

**Estimated Total**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21,860</td>
<td>37,944</td>
<td>19,796</td>
<td>10,981</td>
<td>90,581</td>
</tr>
</tbody>
</table>

From: Poppel et al. (2007a)

### Table VII: Summary Comparisons of Villages, Towns, and Cities

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>Greenland</th>
<th>Chukotka</th>
<th>Northern Alaska</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children in household</td>
<td>1.6</td>
<td>1.2</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Mean index of native language (max=20)</td>
<td>17.2</td>
<td>15.6</td>
<td>16.4</td>
<td>17.7</td>
</tr>
<tr>
<td>Mean - 6 subsistence activities</td>
<td>2.8</td>
<td>2.3</td>
<td>3.1</td>
<td>2.7</td>
</tr>
<tr>
<td>% adults with a vocational or college education</td>
<td>14%</td>
<td>50%</td>
<td>19%</td>
<td>54%</td>
</tr>
<tr>
<td>% of adults with job past 12 months</td>
<td>46%</td>
<td>56%</td>
<td>56%</td>
<td>77%</td>
</tr>
<tr>
<td>Mean index strength of family ties (max=3)</td>
<td>2.3</td>
<td>2.3</td>
<td>2.1</td>
<td>2</td>
</tr>
<tr>
<td>Mean index availability of social supports (max=28)</td>
<td>21.8</td>
<td>23.1</td>
<td>21</td>
<td>22.5</td>
</tr>
</tbody>
</table>

From: Poppel et al. (2007b)

#### 11.2.3 Educational attainment by gender

There are some gender differences in educational attainment among Inuits, in favour of men, but the differences are maybe not as big as one might expect. Table 556 below shows the distribution for all four countries merged together.
11.2.4 Pre-school/Kindergarten

About half of the Inuits who have been interviewed have been to pre-school or kindergarten. The percentage is highest in Alaska (71 per cent), and lowest in Greenland (38 per cent). There are also substantial regional differences within each country.

From: Poppel et al. (2007a)

11.2.5 Schooling outside community

In total one third of the Inuits have attended part (or whole) of their elementary schooling outside their own community. The necessity to leave home in order to get education has been highest for Inuits in Greenland (48 per cent).

From: Poppel et al. (2007a)

Poppel et al. (2007b:14) writes:

The stories we heard suggested that going away to school was often stressful. The results regarding elementary school differ by country. About the same percentage of Greenland Inuit found attending elementary away from their community stressful as those who attended elementary school at home... In Chukotka and Alaska, attending elementary school away from home was substantially more likely to be stressful. But even at home the experience could be stressful. One Alaska Iñupiat reported, “There was a conscious effort to punish students who used Iñupiaq language and a conscious effort to separate students from parents. We had a black board in a class of 4th, 5th, and 6th graders. If one child spoke Iñupiaq, the teacher
would put on the wall a bull’s-eye and all the students would be forced to stare at the center for 30 minutes to 2 hours.”

11.2.6 Education as gateway to other goods

Poppel et al. (2007b:13) conclude that formal education is important for several aspects of living conditions, not least a way to improve cash production:

Inuit adults with a high school degree earn on average 49 percent more than Inuit who did not complete high school. Inuit completing a college education earn on average 47 percent more than Inuit with a high school education. Perhaps it should not be a surprise either that the same relationship works in subsistence. The number of traditional skills learned as a child explains 29 percent of the variation in the number of subsistence activities pursued in the last year. Both formal and traditional education contributes to production activities that in turn contribute to overall well-being.

11.2.7 Indigenous culture in Education

Another aspect of education important to Arctic indigenous peoples is the integration of their culture with the educational system. The level of integration has changed markedly over the last decades. It also differs substantially by country. In Greenland, for example, some of the teachers or teachers’ aides have been Greenlanders, the Greenlandic language has been taught in schools, and subjects have been taught in Greenlandic (see Table XV below). Most Greenland Inuit are being taught Greenlandic culture and history, although less than half of Greenland Inuit think what they were taught was accurate.

In both Chukotka and Alaska, the presence of indigenous teachers or teacher’s aides in elementary or high school classes has increased over the lifetimes of the oldest residents, as has indigenous language instruction and coursework in indigenous culture and history. About a third of Chukotka indigenous people and two-thirds of Alaska Inuit think that what they were taught about indigenous culture and history was reasonably accurate.

Overall, the integration of indigenous culture in the Arctic education system has improved substantially, but there is still a long way to go, particularly with regard to meeting Inuit standards for the accuracy of information about their own culture and history.

<table>
<thead>
<tr>
<th>Table XV: Indigenous Culture in Education by Age and Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some teachers or teachers aides Indigenous in elementary or high school</td>
</tr>
<tr>
<td>Canada</td>
</tr>
<tr>
<td>Greenland</td>
</tr>
<tr>
<td>Chukotka</td>
</tr>
<tr>
<td>Alaska</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Taught Indigenous language in elementary or high school</th>
<th>15/16-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55 and over</th>
<th>All adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>88%</td>
<td>83%</td>
<td>63%</td>
<td>27%</td>
<td>41%</td>
<td>67%</td>
</tr>
<tr>
<td>Greenland</td>
<td>100%</td>
<td>98%</td>
<td>98%</td>
<td>98%</td>
<td>99%</td>
<td>80%</td>
</tr>
<tr>
<td>Chukotka</td>
<td>91%</td>
<td>70%</td>
<td>70%</td>
<td>50%</td>
<td>57%</td>
<td>89%</td>
</tr>
<tr>
<td>Alaska</td>
<td>91%</td>
<td>95%</td>
<td>96%</td>
<td>18%</td>
<td>8%</td>
<td>52%</td>
</tr>
</tbody>
</table>

From: Poppel et al. (2007b)
The chapter on education in the AHDR report (2004:169-185) lists the following findings with regard to education and research in the Arctic:

- Education is regionalised and involves mostly small populations in remote communities and few urban centres.
- There is a high degree of cultural diversity and erosion of small languages is common.
- The level of educational investment varies as do the costs.
- Accessibility to post-secondary education varies greatly.
- There is no clear circumpolar trend with regard to how different countries strike the balance between standardised curriculum and locally specified content.
- The circumpolar challenge is to have quality research throughout the education system.
- There is a gap in research with regard to studies focusing on differences between state-developed and indigenous education systems of education.
- Regional-scale systems are not easily comparable and circumpolar studies are almost non-existent, with the exception of Darnell and Hoem (1996).

The chapter then goes on to discuss three specific themes – the balance between local control and national directives, indigenous education and higher education. The report on education concludes that the most critical concerns are issues regarding control, relevance and access to education and that (ibid.:183):

_The three concerns are directly impacted by the acknowledgement of distributed knowledge and the need to adapt education services to fit local needs and conditions. They are set against a legacy where western values have been given priority in the view of knowledge over indigenous ways of knowing. The shift from viewing knowledge as a standardized commodity to seeing it as a distributed resource has lead to pressures for decentralization of control and decision making, local adaptations of curriculum, and increased use of technology to access knowledge from any place at any time (i.e. University of the Arctic)._
12 SUMMING UP, CONCLUSIONS AND SUGGESTED RESEARCH PRIORITIES

12.1 INTRODUCTION

Our experience from this document survey is that when searching for data of relevance to the question of equity in the Arctic, the most relevant and easily accessible information was available from Alaska and the three Canadian territories. This may both be due to the fact that they are separate jurisdictions and that they use English as their official language. However, judging from the information we have been able to find from Alaska and Canada there seems to be a very high awareness and interest both from authorities and researchers in the relevant issues with regard to the development of the Arctic areas, and in particular an awareness of the situation of indigenous peoples in the Arctic. This may be because in both Alaska and in the three Canadian territories indigenous people are a large part and in some areas the majority population, while in Norway, Sweden and Finland the majority is non-indigenous in the geographical areas constituting the Arctic.

Because of the awareness, interest and available information there seems to be much to learn from the processes Alaskans and Arctic Canadians have been and are still going through. In particular it has been interesting to study the amount of effort and resources, judging from outside, which is being put into developing a culturally coherent and comprehensive education provision in the new territory of Nunavut. However, even if there is much to learn from cooperating and exchanging views across the circumpolar regions, it is still important to take into account that the context and situation may vary much from region to region which in turn limits the opportunity to transfer experience and measures used from one context to another.

In the following section we will summarise the challenges that seem to be common for the regions we have studied.

12.2 CHALLENGES IN THE ARCTIC

The Arctic can, as we have seen (confer section 1.1) be defined in different ways. No matter how it is defined, the Arctic comprises mainly areas that can be defined as rural; the urban settings are few and far between with the exception of Arctic Russia. A central characteristic for the Arctic region is the differences that exist between urban and rural areas. In general the rural areas are characterised by more primary industries, fewer job opportunities, lower educational level, out-migration of young people, an ageing population, and long distances between settlements. The majority of the indigenous people live in rural areas. The towns and centres are in many ways characterised by the opposite of the rural. The differences between rural and urban areas will not be visible if the whole region is used as a part of departure for studies and statistics.

On the basis of our material it is possible to claim that the challenges of rural areas are more pronounced in the Arctic region as compared to rural areas in more central regions in the countries. Therefore, these dimensions seem more central for understanding differences in provision of education, than differences between Arctic and non-Arctic areas within a country. These differences can be related to the more general factors influencing differences in school attainment and educational choices such as social background, class, ethnicity, and gender.

Out migration of young people and lower percentages of well-educated people seems to be a general challenge for the Arctic region, particularly in the rural areas. The labour market and the living conditions in these areas do not attract these groups to a sufficient degree. Individual success in the education system might therefore result in a loss for the local community. This is a dilemma rural areas in general are confronted with. This also has a gender aspect because a general trait in many of the rural areas in the Arctic is that the majority of those who move away and take higher education are young women, while the young men represent the majority of those who stay and take less education.
Long distances and small settlements in rural areas represent important challenges for education provision concerning the organisation of the teaching, availability of qualified teachers, economic and material resources, etc. Because of small numbers of pupils in many areas the cost of provision of education is generally higher than in urban areas. This may cause school closures, as has been the case in Norway over the last decades, and it may limit the opportunities for providing an education which is both culturally relevant and has a high quality.

Particularly in the rural areas in the Arctic, there seems to be a general challenge concerning the provision of trained teachers. There is a high turnover of teachers and education managers in some areas which results in a situation with many unqualified teachers and amongst the qualified ones a teacher population which is fairly inexperienced (i.e. fairly newly qualified). Lack of experience and of qualifications poses specific challenges in areas with a lot of multi-grade teaching and less support systems than in more urban areas.

In general it has been difficult to find relevant data about the outcome of the education systems in the Arctic. However, there is evidence that students in some Arctic areas perform at a lower level compared to the rest of the population and that they also have higher drop-out rates. Sweden, however, seems to be an interesting deviation from these trends. The reasons for these trends are complex and need to be discussed in context, and may include some of the issues discussed elsewhere in this section such as lack of qualified teachers, lack of support systems, perceived non-relevance of school content, etc. For indigenous populations there is also evidence that children may face prejudices which makes going to school and performing well at school, difficult.

The recruitment of teachers with competence in indigenous language and culture is a specific challenge. In general there is a lack of teachers with indigenous background, and raising the percentage of teachers with such background is difficult since fewer students from the indigenous populations continue into higher education as compared to the rest of the population. Specific teacher training programmes have been set up to support the training of indigenous teachers in some areas, and it is important to see how these programmes influence teacher recruitment and in particular the quality of the educational provision in the area. Other challenges concerning the indigenous population differ considerably between and within regions and countries in the Arctic. This is partly due to differences in the size of the language groups and geographic localisation/accessibility.

Results from the different countries presented in Chapters 3 to 10 show that the degree of adaptation of curriculum to the local context varies considerably, from Nunavut where, judging from information provided, the whole curriculum will be based on Inuit principles, to curricula where the scope for adaptation seems to be more limited. The students’ perceived relevance of the curriculum to their life experiences influences how they value school; a large inconsistency between life in school and life outside of school can result in alienation. However, locally relevant curricula may influence the students’ opportunities for following the different motives that they may have for their education, something which is discussed in more detail below.

The challenges concerning the provision of education in the Arctic are related to the different motives for school and education discussed in Chapter 2. Education should contribute to personal development, provide knowledge and skills necessary for participating on equal terms as a citizen in society with the possibility to influence, and education should contribute to development of knowledge and skills necessary for economic development. These motives can be conflicting and at the same time they link to each other in different ways. Personal development is a necessary condition for being able to participate as a citizen on equal terms. Personal development involves recognition of the pupils’ and students’ social and cultural background by having teachers and school material that reflect this.
An involvement of the local community and the parents is also important in this context because parents’ involvement and attitudes towards school are central for school attainment. This also means that the **students/pupils must experience the content and organisation of the education as relevant.** This seems to be a major challenge in the Arctic area in particular for groups who do not belong to the cultural majority (social class and ethnicity). This links to the second motive for education; citizenship and participation in society which involves becoming socialised into the values and norms of the national society. When there are significant social and cultural differences, including class, ethnicity and language in a country, young people from minority groups have to a certain degree to be disciplined and assimilated into the majority society in order to participate. If the school and the content of education in addition are experienced as not very relevant for them, this can in different ways lead to low school motivation, language problems and low school attainment. The example of Finland shows the connection between good school results and a culturally homogenous society, and a society where education has a strong position amongst parents. Small communities with cultural diversity and an indigenous population, where parents may have had very negative experiences with the education system, represent quite a different situation.

The link between education and skills required for the labour market is also problematic when there are **significant differences between the local and the regional/national labour market.** A major challenge, particularly in the rural areas in the Arctic, is to provide education which is also experienced as relevant for the local labour market. This again raises the question concerning the attractiveness of the local labour market and local living conditions for young people in these areas. For some of them educational success could represent a ticket out of the local community and into a regional, national, or even an international labour market which quite often offers better conditions, at least economically. In this way educational success for the individual can represent a loss of competent young people for the local community. **Development of a more varied labour market with a link to the education system** could be a strategy for improving the local relevance of education, increasing the young peoples’ school motivation and increasing the possibility for young people to get a job locally. This is particularly relevant for vocational education. A challenge in this respect is that the locally oriented young people seem to be less motivated for secondary education, and the majority of these are young men.

The Arctic regions are facing **significant challenges concerning increased national and international interests** in these areas, in particular related to climate changes and management of natural resources. The development of the local communities, including the local labour market, is also linked to the national regional policy and strategies for regional and local development. This can lead to different development trajectories depending on the interplay between external and internal factors. The education system and the local schools may play an important role in this context depending on local attitudes towards formal education. At the one extreme some areas may become marginalised because they are being left out of the mainstream development processes. This means that actors, individuals, groups and municipalities, gradually have less and less influence on their own situation. The marginalisation process has both a spatial and social aspect. The spatial aspect concerns loss of control of management of local resources and the local framework conditions at local level. The social aspect concerns marginalisation of groups and individuals. High drop-out rates, high unemployment rates, and a large amount of social problems can be indicators of such a situation. In this context those who leave can be considered as the winners, while those who stay may be considered as the losers. On the other hand, those who leave might also be considered as turning their back on their home place. At the other extreme, some areas may mobilise a strategy for resistance where the local level is trying hard to work against the negative consequences of the development processes. In this context **the schools can be an important actor in local development processes,** both as a social and cultural institution, and as a provider of education. However, this requires that the school and the education system have legitimacy and support from the local community.

The potential changes in some of the areas in the Arctic concern the meeting between traditional economic activities and new technology, the modern labour market and global networks, and the meeting between local cultural values and ways of life, and modern Western society and culture.
Important challenges concern how to avoid a situation of marginalisation, and instead becoming able to mobilise the local community to take control over the local development processes at the same time as participating on national and international arenas where important decisions with consequences for the local community are being taken. This again is linked to the central aim for education of enabling people to participate as citizens.

Increased globalisation of education systems might influence the way education is viewed and valued. Focusing on education as a means to enhanced economic development where high competence is mainly seen as a means to success in the global economic competition, may make differentiation of school organisation and content more difficult. Assessment programmes such as PISA and TIMSS, and the importance which is given to the results from these in the different countries, highlights the importance of studying how they influence on educational practices and policies. Taking into account the fact that students, at least in some Arctic regions, seem to be performing at a lower standard at common, standardised tests, it is particularly important to discuss how such testing may influence on the development of curricular content and values forming the basis of the educational system. Can increased participation in test programmes result in more standardisation in stead of local adaptation, inclusion of local history, culture, native languages etc.? And, if so, to what degree and how are such test programmes useful with regard to development of an equitable educational provision in the Arctic?

Another element that might influence the development of education provision in the Arctic is all the electronic tools which are being made available for education purposes. With regard to Internet there is still a way to go with regard to universal access in some areas, for instance in Russia. However, this will probably change very fast in the years to come. It will be important to study how this development will influence education provision in the Arctic with regard to a number of issues such as accessibility, content, focus, co-operation across borders etc., and also how it influences Arctic societies more generally.

12.3 ISSUES FOR FURTHER RESEARCH

Based on our summary above and suggestions in documents reviewed, some areas that can be relevant for further research with regard to the issue of Education For All (EFA) in the Arctic are suggested below.

In the Arctic regions there are similarities across national borders, but also significant differences between different regions. In order to carry out comparative research with relevance for developing measures to achieve central goals for EFA, it is necessary to identify common challenges. These must be based on a social and cultural understanding of the position of schools and education in a local context. In order to facilitate research on related issues relevant for the educational situation in the Arctic, it is necessary to develop network of researchers with in-depth knowledge of these issues in the local context. A common research programme aimed at investigating the issue of Education For All in the Arctic would enable the research network to exchange and investigate existing experiences and carry out research and develop new knowledge about the issues which are given priority.

Issues and research questions for comparative research relevant for achieving the goals for EFA in the Arctic could be:

- The availability of statistical data with relevance to answering questions about issues in the Arctic varies greatly from country to country. What are the reasons for this variation? To what extent is comparable data desirable and possible, and if it is desirable: what kind of data should be made available?

33 Confer also Section 3.3.3 and Section 3.3.4
• The challenges related to rural and urban areas: how are the challenges regarding equitable education different in rural and urban areas, and how are these challenges being met?
• The challenges related to indigenous populations differ in scale and scope between the countries and regions. What are the main challenges in different countries/regions and how are they addressed?
• What is the situation concerning recruiting, retaining and developing qualified teachers in different areas; what challenges and best practises are found?
• What characterises the curricula used in the different regions in the Arctic, and how are they being implemented, i.e. prominent ways of working, use of teaching resources, and in particular the use of local environment, monitoring and follow-up systems, the degree of student participation in decisions in school etc.
• The balance between national and local control of education and, more specifically:
  o How is the organisation of and teaching in schools; challenges and best practises?
  o How is the situation with regard to curricula and their openness to locally relevant education provision; challenges and best practises?
• Students with special educational needs: what practices can be found across Arctic regions and what kinds of support systems are developed to support teachers in catering for students’ different needs?
• How is new technology being used, and what is the effectiveness of new ways of making education accessible to students?
• How is the cooperation between schools and parents/the local community; challenges and best practises?
• How is the cooperation between schools and the local labour market; challenges and best practises?
• How is it possible to develop indicators for measuring achievement for the different goals for education related to personal/cultural development, citizenship and democracy, and skills for the labour market and economic development?
• What role does formal education play in the development of life projects of young people in these areas?
• How does increased globalisation of education issues influence how education is valued and how educational practices and policies are being developed?
• How is the vocational education linked to the local and regional labour market?
• How is the recruitment of young men and women to different vocational educations?
• What are the attitudes towards vocational education among young people and in the local community?

To investigate the important indicators and trace the effects of education systems on students over time, it is important to allow for longitudinal studies that enable researchers to follow cohorts of students from pre-school stage, through compulsory education and into post-compulsory education systems. To be able to do so with regard to the question of equitable education in the Arctic would, however, be a long-term task and would require considerable investments both politically and with regard to economic means.

Short term efforts, however, could include arranging workshops between researchers from the different countries that belong to the Arctic region. The workshops could be thematic, bringing together knowledge from different countries on important issues, and aiming at sharing and discussing this knowledge in a comparative perspective. The outcome of such workshops could be suggestions for and agreements about common research efforts in the years to come. With regard to the list of issues presented above, the following themes could be approached first, due both to urgency and availability of relevant material:

• The situation and challenges with regard to equitable education provision for indigenous people,
The relationship between the local and regional labour market and the education system, in particular regarding current ongoing development processes in the Arctic regions, and
Availability and provision of qualified teachers, relevant teaching resources and other support systems important for the schools’ development and growth.
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