

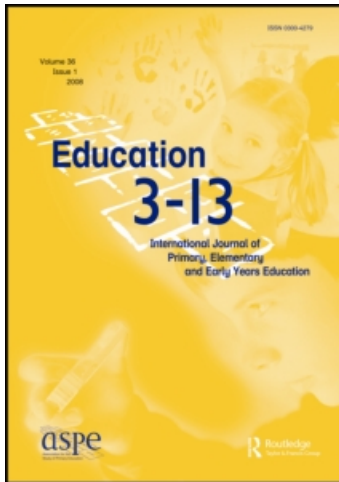
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Towards an understanding of *udeskole*: education outside the classroom in a Danish context

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In the past decade, an increasing number of Danish public, private and independent schools have introduced regular compulsory education outside the classroom for children aged 7–16 as a weekly or biweekly ‘outdoor school’ day – known in Danish as *udeskole*. An analysis of this form of outdoor education, its impacts and provision has been undertaken. Findings suggest that *udeskole* can add value to normal classroom teaching especially with regards to health, social and well-being perspectives. Future recommendations include collaborative strategies between researchers, local government sectors, and educational and landscape planners and managers to improve the impact and provision of *udeskole* in the Danish school system. Further, it is important to understand this grassroots movement of devoted teachers from both an educational and green management perspective.

Keywords: outdoor education; outdoor teaching; place-based education; use of nature and green space

Introduction

In an increasingly urbanised and industrialised society (Worldwatch Institute 2007), children’s contact with natural environments has been perceived as decreasing (Rickinson et al. 2004; Breivik 2001). However, during the last decades there has been an increase in formal educational activities with children and adolescents taking place in natural settings (e.g. Davis, Rea, and Waite 2006; Tordsson 2003). Denmark is no exception (Andkjær 2005). A commonly held belief in many Western and especially Scandinavian countries is that nature must play a role in childhood and the education of children and adolescents (Bentsen, Andkjær and Ejbye-Ernst 2009; O’Brien and Murray 2007; Dahlgren and Szczepanski 1998; Grahn 1996).

Turčová, Neuman and Martin (2004, 3) state, that “*due to recent and rapid development in the field of outdoor education, many new terms, from many different cultural, historical, academic and practical ‘places’ have appeared*”. Davis, Rea and Waite (2006) mention outdoor adventures, residential centres, field studies, Forest School and play in the outdoors as contemporary forms of outdoor learning available in the UK for children 3–11. Accordingly, formalised outdoor learning

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with children is taking place in many ways in Denmark, and various concepts and forms occur, e.g. nature and forest kindergartens, nature interpretation, nature schools, outdoor teaching, camp schools etc. Little is known about the impact and the provision of these different forms of outdoor learning.

Recently, Rickinson et al. (2004) reviewed English literature on outdoor learning, its impacts and provision. However, Turčová, Neuman and Martin (2003) suggest that more understanding of the cultural, historical and geographical differences between concepts used in both English and non-English speaking countries is necessary.

Thus, this paper focuses on the newest development of education outside the classroom in Denmark (and Scandinavia), referred to as *udeskole*¹. The aim is to give an overview of the current state of knowledge about *udeskole* in Denmark, targeted at an international audience. Since the majority of research and development projects in *udeskole* is largely national, and is often only disseminated in the national languages (i.e. Danish, Swedish and Norwegian), most research in this area is not available in English as stated by O'Brien and Murray (2007). Therefore, we review literature that explicitly explores *udeskole*, its theory and practice. We analyse and evaluate *udeskole*, its impacts and provision. Based on this, we discuss future directions for practice and research.

Danish research in relation to outdoor education and specifically to *udeskole* is a recent phenomenon, and research in the area of *udeskole* is therefore limited. Since 2000, research has been carried out in the context of student theses and papers (e.g. Jacobsen 2005b; Jensen, Lager, and Kristoffersen 2005), research and development projects (e.g. Mygind 2008, 2007, 2005; Bruun and Regnarsson 2004; VIA University College) and recently as PhD studies (Bentsen 2007; Hyllested 2007). A similar trend and development can be seen in Norway and Sweden (e.g. Jordet 2007; Szczepanski et al. 2006; Abelsen 2002; Limstrand 2001).

This paper is organised in three sections. First, we shortly describe the Danish context and the concept of *udeskole*. Second, we analyse recent research and development projects in *udeskole*. Third, we discuss directions for future practice and research.

The Danish context and the concept of *udeskole*

'Any particular form of outdoor education can be understood as an expression of the ideas and assumptions of its protagonists and as a response to a particular set of conditions' (Brookes 1992, 53), thus, outdoor education is bound to time and place (Eichberg and Jespersen 2001; Humberstone and Pedersen 2001). Consequently, different outdoor traditions have emerged not only in relation to specific geographical landscapes, but also as a consequence of particular circumstances: cultural, social, economic, demographic and political contexts (Neill 2001). Hence, every educational practice takes place within a set of parameters, which to a greater or lesser extent influences the educational possibilities (Dietrich 2002; Kristensen 1991).

In Denmark, Norway and Sweden outdoor recreation and outdoor education is often referred to as *friluftsliv* (literally meaning free/open-air life) (e.g. Henderson and Vikander 2007; Andkjær 2005). The Danish development of outdoor recreation and outdoor education can be perceived as a parallel-history to the European and is especially influenced by Norwegian, Swedish, British and German thoughts and

ideas within sport, recreation and education (Tordsson 2003; Eichberg and Jespersen 2001; Humberstone and Pedersen 2001; Sandell and Sörlin 2000). However, Denmark has a distinct school system (e.g. Danish Ministry of Education 2007a, 2007b; Cirius 2006) and landscape (e.g. Mygind and Boyes 2001; Jensen 1999) framing (outdoor) education of children.

The Danish school system

The Danish public school is an inclusive and broad school in the sense that it includes both primary and lower secondary education with no streaming (Cirius 2006). Danish children begin their nine years of compulsory schooling the year they turn seven. Children between the ages of three and six attend kindergarten, and almost all children attend a voluntary pre-school year before starting school. All children between the age of 7 and 16 must receive education provided by municipal school, private school, or at home; it is a matter of choice, as long as national standards are met (Danish Ministry of Education 2007b).

Danish public schools are run at the local governmental level. Recently, a development towards decentralisation within the public school system has taken place that may be characterised as a ‘free school model’ within the framework of each municipality. The public school act of 1989 decentralised a lot of decisions to school boards, which have the parents in the majority (Danish Ministry of Education 2007b). In general, the public school has the same curricular structure in all parts of the country, but there is a wide range for variety based upon local government and local school decisions. The central administration of public schools is carried out by the Danish Ministry of Education. The Danish Parliament takes the decisions governing the overall aims of the education, and the Minister of Education lay down the target for each subject, but the municipalities, schools and teachers decide how to reach these targets (Danish Ministry of Education 2007a). Schools are permitted to draw up their own curricula as long as they are in harmony with the aims and skill areas set by the Ministry, and teachers have within this framework what could be called ‘freedom of methods’.

The Danish landscape

Denmark is a small country, with a population density of 128 inhabitants per km² (total land area of 43,000 km²), and 85% of the Danish population live in cities. An intensive cultivation of the country has resulted in a landscape influenced by both natural and cultural processes. At the beginning of the nineteenth century, the Danish landscape was heavily used for agrarian production, and because of over-exploitation, forests accounted for only about 2% of the land. Thus, there is a rather homogeneous geographical distribution of a relatively small forest area per inhabitant (Jensen 1999). Today, the forested area has grown to about 14% of the total land area, and a national political decision was taken in the 1980s to double the forested area of Denmark within a forest generation (more than 20% in 2020) (Jensen and Koch 2004). With more than 7,700 km coastline and more than 550 islands, Danes have generally easy access to the coastlines and beaches. In this context, forest and beaches are the most frequently used nature areas for recreational as well as outdoor educational purposes (Jensen 1999, 1995). More recently, the

Danish Ministry of Environment (2004) states that in the years to come the government will prioritise Natura 2000 (habitat and bird protection areas), new national parks, smaller biotopes and semi-cultural green areas. These areas have become increasingly more important for wildlife, recreational activities and in addition outdoor educational activities.

Despite this, Danish landscape is typically urbanised, with a significant impact from cities and roads, and environmental and cultural heritage resources are consequently put under pressure. Further, the legislation, especially the protection of private property, differs from that in the rest of Scandinavia (i.e. right of public access) (e.g. Sandell 2007). In Denmark more than 80% of the total land area is privately owned, and there is limited access to open natural areas in contrast to other Nordic countries.

The concept of udeskole

Udeskole is a term that not only refers to a method of teaching but also a movement to redefine school, and a theory about how education should be viewed: an understanding that education exists in a social, economical, political and geographical context. This concept of out-of-school-teaching stems from Norway (Jordet 2007, 1998), where teachers and pupils also use natural surroundings or culture settings, i.e. museums, companies, factories, churches etc as 'outdoor' classrooms on a regular basis. It is hard to find a suitable equivalent word in English, but *udeskole* could be understood as 'outdoor schooling' or 'out-of-school-teaching'. This form of curriculum-based outdoor learning has not been previously defined or described in detail in the international literature. Therefore, we summarise and conclude that *udeskole* has its target group of school children aged 7–16, and is characterised by the fact that *compulsory* educational activities take place outside the walls/buildings of the school and are done on a *regular* basis (i.e. a day every or every other week) and can take place in nature, local communities, factories, farms etc. (Jordet 2007, 1998).

In Denmark *udeskole* has mainly been practised in natural settings to date and the term *nature classes* has been used and could be understood as a subset of the term *udeskole* (Mygind 2005). Examples of teachers' and children's *-udeskole*-activities could be work within specific subjects and curriculum areas, e.g. mathematics by measuring the height and volume of trees, language by writing poems in and about nature, or history or religion by visiting historical significant places etc, but are very often also cross-disciplinary and cross-curricular activities.

An analysis of udeskole

Any analysis when examining educational isis must also acknowledge the social, political and geographical context within which this takes place because the external environment has a profound impact on educational institutions and practices (Kristensen 1991). Thus, like Rickinson et al. (2004) we focus on both the impact and provision of *udeskole*. An analysis of impact and provision can be a useful tool when examining isis and current environmental conditions. This will give a picture of the present situation of *udeskole* and can be used in formulating strategies and policies for practitioners, administrators, and researchers (Balamuralikrishna and Dugger 1995).



Figure 1. *Udeskole* takes place outside the formal boundaries of the school. Photo © 2006 Dorte Vind.

Impacts of udeskole

The first major Danish research and development project in *udeskole* took Rødkilde School in Copenhagen as a case study. The teachers conducted their teaching in a forest one school day per week during 2000–2003. Erik Mygind, an associate professor at the University of Copenhagen, organised a multi-dimensional and cross-scientific research project that aimed to investigate the impact of this weekly compulsory teaching in natural setting on pupils, their parents and the two teachers (e.g. Mygind 2008, 2007, 2005; Andersen, Sølberg, and Troelsen 2005; Herholdt 2005; Jacobsen 2005a, 2005b; Stelter 2005).

From a physical health perspective Mygind (2007, 2005) recommends *udeskole*. Mygind (2007) measured the children's physical activity levels with the CSA 7164 activity monitor (an accelerometer designed to ascertain normal human movement) at school and in the outdoors. A significantly higher level of physical activity was found among children during teaching days in a nature environment compared to a 'normal' school day. Recently, a Norwegian case study has reached the same conclusion through a measurement and analysis of physical activity by heart rate monitors in a 6th grade class (Grønningsæter et al. 2007).

Further, impact in the Danish project was studied from a social and psychological perspective. Mygind (2008) used questionnaires completed by the pupils to compare social relations, perception of teaching and physical activity developed in normal school and in the natural setting, respectively. It was concluded



Figure 2. Promoting physical activity and healthy lifestyles. Photo © 2005 Dorte Vind.

that the combination of classroom and outdoor teaching had a positive effect on the children's social relations, experience with teaching and self-perceived physical activity level (Mygind 2008, 2005).

Herholdt (2005) investigated pupils' use of verbal language in the indoor and outdoor context through tape-recording and observation of 22 lessons. She concludes that there is a difference in the character of used language functions in the two educational settings, i.e. during indoor teaching the language was mainly descriptive and referring while more inquiring and explorative outdoors. In continuation, Jacobsen (2005b) concludes, based on ten observations, that the natural context offers some qualities, while the classroom context offers other qualities that together support the development of different competencies. Outdoors there is a greater opportunity for more pupil centred projects, less teacher control and more time for becoming absorbed in learning activities (Jacobsen 2005b).

Andersen, Sølberg and Troelsen (2005) explored what pupils thought about nature and their understanding of natural phenomena and interrelations in nature, and found a reflective consideration of nature does not develop *per se* by teaching in a natural setting.

Stelter (2005) examined the didactical choices, teaching methods and ways of being with pupils of the teachers. He concludes that natural settings create opportunities for experiential and situated learning, and that the natural setting can act as a catalyst for change in pedagogical methods.

Jacobsen (2005a) investigated parents' attitudes towards the outdoor-teaching concept through a questionnaire in the beginning, after a year and in the end of an outdoor learning project. From a situation where some concern was expressed, the parents were very positive after three years with *udeskole*. The parents valued the combination of theory and practice, and that the outdoor teaching increased well-being in school in general, extended knowledge about trees and animals and social relations in the class (Jacobsen 2005a).

Summing up, it seems that as *udeskole* can contribute to the realisation of the overall aims of the Danish school system, especially its impact on health, well-being and social competencies must be emphasised. *Udeskole* can contribute to school pupils' academic, social, personal and physical education and development. The literature points to an increased focus on the potential of *udeskole* to add value and variation to daily school life. In this way, outdoor teaching and learning and more mainstream schooling can work together and complement each other.

However, some caution is required. First of all, the scope of research and development is very limited, in addition, so is the number of children and teachers investigated. Second, only case studies and action research have been conducted. Third, the research has mainly been carried out among teachers and schools as to who are positive about *udeskole* – and in addition, maybe also carried out by researchers who are positive about *udeskole*. Further, it is important to be aware of potential bias towards publication of positive results – perhaps there are studies with negative results that are not published? Basically, there is a need for an increased number of studies to increase understanding of different programmes, people, places and processes and make more secure conclusions about impacts and outcomes – especially with regards to impact on academic standards. In addition, studies that examine the long-term impact of *udeskole* would also be relevant. However, the above analysis leads to a strong positive hypothesis towards benefits of *udeskole*, and thus, highlights the potential of *udeskole*.

Provision of udeskole

The concept of *udeskole* is not written in the Danish national 7–16 curriculum as it is (or has been) in e.g. Norway (Jordet 2007; Mygind 2005), it is however initiated as local development projects by individual teachers, group of teachers or whole schools. These development projects must be seen in the light of the Danish 'free school model', schools and teachers' interpretation of the curriculum, and their relative freedom to develop new pedagogical ideas and methods. Thus, Mygind (2005) has characterised *udeskole* as a bottom-up phenomenon started by devoted and enthusiastic teachers originating from 'the reality in the Danish school system'. As such, this form of outdoor education has been a practitioner's project and can therefore be characterised as a grassroots movement – and a form of counterculture to the existing ways of practising education, schooling and teaching.

The concepts *udeskole* and *nature classes* have become increasingly widespread throughout Denmark: from a few classes and teachers in the nineties, it is estimated that more than 50–60 teachers and classes practice *udeskole* once a week all year round (Skoven i skolen). Based on new data it is concluded that 290 schools practise *udeskole*, which is approximately 15% of all Danish schools (Bentsen 2007).

In Norway *udeskole* is also a widespread phenomenon (e.g. Jordet 2007; Hansen 2005). A Norwegian national survey from 1996 showed that the extent of *udeskole*

(half a day or more per week) was 37% of school time in 1st–4th grades, 6% in 5th–7th grades and 1% in 8th–10th grades (Bjelland and Klepp 2000). A regional study from the North of Norway does also show a decline with increased age and class (Limstrand 2001).

In addition to this growing interest in *udeskole* and the perspectives of using forest, parks and green spaces for educational purposes from teachers and schools there is an increased awareness from governmental, non-governmental and private organisations and institutions. In 2006 a website, www.udeskole.dk, was established to further support this development. Several municipalities, especially some of the larger (e.g. Copenhagen, Århus and Esbjerg), have been important stakeholders in promoting *udeskole* (Hansen 2005; Udeskole.dk). The Danish Nature and Forest Agency (2006) is also emphasising *udeskole* and supports schools with facilities. In addition, the private forest owner's organisation has started the project 'the forest in the school' (www.skoven-i-skolen.dk). Non-governmental institutions such as the Outdoor Council also stress and support the role of nature and green areas in education for children and adolescents (Friluftsrådet 2006). In addition, there is a growing interest from researchers and media in *udeskole*.

However, there is no formalisation of *udeskole* or economic or political support at a governmental and ministerial level.

Several studies show that the distribution and quality of *udeskole* depends very much on the individual teacher (Hyllested 2007; Mygind 2005; Limstrand 2001). In a study from Norway, Limstrand (2001) concludes that the distribution of *udeskole* is random compared to the type and size of the schools. It seems as if primary school teachers (i.e. the non-examination years) have an easier time putting *udeskole* into practice than secondary teachers (Limstrand 2003, 2001). Thus, teachers are central for the provision and quality of *udeskole* (Mygind 2008; Limstrand 2001). Norwegian and Swedish studies indicate that *udeskole*-teachers are enthusiasts with experience in *friluftsliv* and outdoor recreation (Limstrand 2001; Lunde 2000; Ericsson 1999).

Udeskole is not a compulsory curricular unit in basic training of schoolteachers. Therefore, many teachers have neither met the concept of *udeskole* and nor had official training in *udeskole*. In continuation, the culture and tradition of 'traditional' classroom teaching can be a weakness in relation to the provision and quality of *udeskole*.

At present, the teachers and leaders involved in providing outdoor education and *udeskole* are not required to have special qualifications or training (Bentsen 2004). In addition, it should be underlined that Denmark offers easy access to forests, woodland and green spaces by car, bus or train, not to mention biking roads, and nobody has to worry about poisonous and dangerous animals or plants within the Danish landscape. This gives opportunities for letting children work and play using nature and green spaces. Thus, safety seems not to be an important constraint to *udeskole*.

The lack of research and theoretical foundations in relation to *udeskole* must be considered as a hindrance to its provision. Abelsen (2002) has described *udeskole* as a 'wild flower' in the school system: *udeskole* is a concept describing a string of practices more than an explicit pedagogical and didactical approach, based on a well-defined theoretical basis and documented results (Abelsen 2002). In general, *udeskole* teachers in Denmark has generally drawn on the philosophy of progressive

education in order to add variation and new knowledge rather than replace ‘normal’ classroom teaching (Jordet 2007; Dietrich et al. 2002).

One reason we see so few theoretical articles about *udeskole* could be related to the youth of the concept. However, Jordet (2007), in his doctoral thesis, establishes a theoretical argumentation and a renewal of progressive pedagogy in theory and practice through case studies of Norwegian *udeskole*-practice.

In general, there seems to be an increased governmental pressure towards more focus on tests and formalised teaching based on fixed curricula. This development of accountability policy has swept the Western world during the last 30 years, as a public reform movement such as the New Public Management (e.g. Hood 1991) and the rationale for re-inventing government (e.g. Osborne and Gaebler 1993). Thus, the lack of documentation of the impacts of *udeskole* – in particular academic competencies – could be seen as a weakness and threat toward the provision. In continuation, it can be discussed whether outdoor teaching and raising academic standards is a dualism or mutually supportive (Waite 2007) and whether schooling and experience is a dichotomy or not (Brookes 2001).

When it comes to barriers to the provision of *udeskole* the literature also draws attention to time, resources and economy. In a development project conducted at a teachers’ college, Bruun and Regnarsson (2004) concluded that time, money, lack of knowledge and insight were important barriers to *udeskole*. Money for transportation and a common need for additional teachers must also be mentioned as barriers (Bentsen 2007). Mygind (2005) concluded that *udeskole* is more expensive than normal classroom schooling, but also an example of a relatively cheap development project.

Jordet (1998) described the potential in the nearby environment as a source for *udeskole*. In addition, the natural and green spaces available do have an impact on the frequency of use. Studies show that distance to nature and green spaces influence use (frequency and length of visits) in both recreational (Nielsen and Hansen 2007; Grahn and Stigsdotter 2003) and educational contexts (Holm 2000). Outdoor teaching and learning is, after all, also a place-based issue.

The weather may also be a challenge to the provision of *udeskole* and is often a subject that concerns parents (Mygind 2005). However, Mygind (2005) concluded that weather did not affect the pupils’ (and parents’) experience with *udeskole*. Hansen (2005) reports that several schools in Stockholm, Sweden, teach outdoors all year round. In contrast, a study from the north of Norway showed that the provision of *udeskole* halves from summer to winter (Limstrand 2001).

In summary, if the apparent potentials of *udeskole* are to be exploited an increased focus and effort from both internal and external stakeholders seems crucial. There is a need for an increased focus on knowledge about the provision of *udeskole*. Until now, most research has focused on impact; it is also important to get an increased understanding of factors that influence the provision of outdoor learning in different contexts (Rickinson et al. 2004).

Discussions and conclusions

Carrying out an analysis of new educational programmes is not an end in itself, but it can be a useful tool for identifying future directions for practice and research (Balamuralikrishna and Dugger 1995). What becomes apparent from the analysis above is that the future of the grassroots movement of teachers, pupils, and schools practicing *udeskole* depends on several internal and external factors, and that there is

a need for further research in order to know more, to do better and to inform strategies for facilitation, support and development. In continuation, it is important to be aware of that research should *improve* as much as ‘prove’ practice (Rickinson et al. 2004).

Directions for practice

An effective way of improving the quality and provision of *udeskole* could be training courses for teachers during their basic education and in-service courses. Currently, a European project ‘Outlines – outdoor learning in elementary schools – from grassroots to curriculum in teacher education’ is trying to expand the traditional outdoor learning focus from environmental, personal, social and health perspectives toward curricular perspectives by introducing subject-oriented outdoor teaching in teachers’ basic education (VIA University College).

From the environmental sector support could be established by planning and management for *udeskole*. This is especially important in a cultivated and urbanised country such as Denmark. At present, *udeskole* has mainly developed in public forests and from that point of view legislation and access to private and public green spaces offers a significant potential in relation to outdoor teaching and learning. Still many areas such as parks and urban green spaces have unexploited possibilities for children’s outdoor learning and recreation (Friluftsrådet 2006; Grahn and Stigsdotter 2003). Forests, woodland and green spaces near schools also offer opportunities.

Thus, an effective way of increasing the provision of *udeskole* and supporting teachers and schools could be by making better use of the green space available. One way to achieve this would be to make links between schools, teachers and park and landscape managers. It is important to develop knowledge and a general overview of green spaces and their use in time with the increasing urbanisation. We cannot assume that suitable green spaces are universally accessible for schools (Randrup et al. 2006). It is therefore beneficial if green space planners and managers are involved in facilitating *udeskole*; their role can be regarded as pedagogical and didactical: organising and framing experiences for health, learning, well-being outcomes.

In summary, the future potential for *udeskole* in Danish schools depends on cross-disciplinary and cross-sectorial cooperation within the organisation of local governments; between e.g., schools, teaching and learning inside and outside the classroom, planning and management of green spaces etc.

Finally, it is important to emphasise that *udeskole* is not equally relevant in all places and at all times. First of all, *udeskole* should be understood as a supplement to ‘normal’ formal schooling. Second, concepts such as outdoor education, outdoor learning, *udeskole*, education outside the classroom etc. take their point of departure and origins from the modern urbanised world (Brookes 2001; Tordsson 2003). Thus, there are places on earth where the concept of *udeskole* does not give any meaning; for instance where individuals are working hard to obtain ‘normal’ classroom teaching, or in other cultures and societies that only have education outdoors (or no education at all) (Brookes 2004).

Directions for research

Despite the growing interest and growing body of research there are still many areas and themes that need more investigation. In the light of the growth of *udeskole* and

the increased interest from different stakeholders, i.e. teachers, NGO's, landscape managers, local government, policy-makers, researchers etc. more knowledge is needed from both an educational and green management perspective.

Considering how many schools and teachers that practice *udeskole* in Denmark, Norway and Sweden, little is known about how *udeskole* is actually conducted, the values and ideas behind teachers' practice, the impact on children, teachers and parents, and constraints and facilitators to *udeskole*.

To enhance our understanding of *udeskole*, its impact and provision it is important to describe and understand this grassroots movement of devoted teachers who have started these pedagogical development projects. What characterises teachers who chose to practice *udeskole*? Another important and relevant question could be why teachers chose to use the outdoors as a classroom? And in continuation, what is the precise extent of *udeskole* in Denmark? It seems important to create baseline data in order to compare with other countries and earlier time periods (Rickinson et al. 2004).

Semantically *udeskole* consists of two perspectives: the outdoors and the teaching. In agreement with Davis, Rea and Waite (2006) we have found that a deeper understanding of these concepts is necessary as well as an understanding of the interaction of the two. The nature of outdoor learning and *udeskole* is thematic and cross-disciplinary. Hence, research must be cross-disciplinary too, by cooperation between e.g. (outdoor) education, sociology, (human) geography, and landscape planning and management (Bentsen 2007).

Udeskole in an international context

While the focus in the above analysis is Denmark and the examples provided are Danish, similar development, practice and research can be seen in many other developed countries (Jordet 2007; Department for Education and Skills (DfES) 2006; Davis, Rea, and Waite 2006; Dahlgren and Szczepanski 1998; Bjerke 1994). The cases of Norway and Sweden are very similar to Denmark although the contexts are different especially in relation to landscape and access. Thus, there has been mutual inspiration between Norway, Sweden and Denmark as regards practical and theoretical issues in relation to *udeskole* (Jordet 2007; Mygind 2005; Dahlgren and Szczepanski 1998).

However, Danish outdoor learning is also influenced by international outdoor education traditions especially from English speaking countries such as USA and the UK (Bentsen, Andkjær and Ejbye-Erust 2009). Terms and concepts from the English-speaking world are increasingly being incorporated in Danish outdoor recreation and outdoor education. But, it is not a one-way inspiration. Scandinavian approaches to outdoor education and learning seem also to influence the English-speaking world. Thus, the international interest in *friluftsliv* is growing (Henderson and Vikander 2007) and the outdoors is increasingly a part of pre-school and school teaching in non-Scandinavian countries. Hence, O'Brien and Murray (2007, 2006) state that traditionally outdoor learning in Britain has included nature oriented and adventure activities mainly carried out outside school hours, and that the development of Forest Schools in Britain began in the 1990's through inspiration from Scandinavia. Maybe outdoor learning practices in Denmark and Scandinavian have (or have had?) stronger links to school curriculum than in Britain and other English speaking countries? It is clear that an increased understanding of outdoor

teaching and learning in different countries and contexts could be another future research focus.

Conclusions

This paper began by observing an increased growth, interest and research into *udeskole* – understood and defined as compulsory regularly curriculum-based out-of-door teaching for children 7–16. An analysis of this form of outdoor learning was performed based on recent research and development. The analysis showed results that support *udeskole* as a supplement to ‘normal’ classroom teaching and that *udeskole* holds a potential in improving modern schooling. In conclusion, we argue that it seems that the combination of *udeskole* and ‘normal’ classroom teaching can increase the possibilities of realising the overall aims of the Danish school system – especially the health, psychological, and social perspectives must be stressed. Also the cross-disciplinary link between education and green space management constitutes a potential for future development of *udeskole*. However, these conclusions must be seen in the light of the limited knowledge that exists.

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Note

1. As we have not found an appropriate English term we use the Danish *udeskole* (*uteskole* in Norwegian). The concept of *udeskole* characterises regular compulsory curriculum-based outdoor teaching and learning in schools and is not captured by concept like forest school, fieldwork and outdoor visits, outdoor adventure education, school ground/community projects etc. (Davis, Rea, and Waite 2006; Rickinson et al. 2004).

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