

Miranda Thurston and Ida Storberget

# Sør-Østerdal Region-in-Motion Project

A rapid evaluation of the *Active Learning Project*

Høgskolen i Hedmark  
Rapport nr. 6 - 2014



Høgskolen i Hedmark

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<b>Keywords:</b> active learning, theory of change, teaching styles, organizational context, evaluation			
<b>Summary:</b>			
<b>Background</b>			
<p>In Norway as elsewhere, there has been heightened anxiety in recent years about the increase in childhood overweight, obesity and mental health problems, as well as young people's disengagement from school and early dropout. 'Active learning' has (re)emerged as a potential antidote to these concerns associated as it is with engaging both physical and mental activities in learning situations. This evaluation focuses on a specific active learning project – the <i>ALP</i> course, a sub-project of the <i>Sør-Østerdal Region in Motion</i> project – that sought to develop teachers' active learning styles.</p>			
<b>Aims of the evaluation</b>			
<ul style="list-style-type: none"><li>• To understand how the concept of 'active learning' has been operationalized in the <i>ALP</i> course.</li><li>• To explore perceptions of the <i>ALP</i> course among those who had been involved in its delivery (teachers and course facilitators).</li><li>• To contribute towards an evidence-base from which to formulate recommendations that could be used to inform decisions about the future development of the <i>ALP</i>.</li></ul>			
<b>Evaluation methodology</b>			
<p>A theory of change approach informed the evaluation, the aim of which was to bring to the surface the 'programme logic' of how the <i>ALP</i> course might bring about change in the desired direction.</p> <p>A cross-sectional study design was used in this small-scale qualitative study. Overall, 28 teachers (six males and 22 females; aged 30 to 57 years old) were recruited from four primary schools and four kindergartens. Eight focus groups with teachers and one with a group of course facilitators were conducted. All were audio-recorded and subsequently transcribed verbatim. Observations were also carried out in three kindergartens. A thematic approach to the analysis of data was taken, which involved identifying themes on the basis of recurring ideas and topics across the whole data-set.</p>			
<b>Findings</b>			
<i>The active learning model</i>			
<ul style="list-style-type: none"><li>• The aim of the <i>ALP</i> course was to introduce teachers to alternative teaching and learning approaches that facilitated learning <i>through</i>, and <i>in motion</i> in <i>all</i> subject areas using the idea of 'playfulness in learning'.</li></ul>			

- Teachers tended to be receptive to active learning ideas and activities, describing their experiences of the course in terms of feelings of enjoyment and fun, being inspired and motivated to build activities into their teaching repertoire.

#### *Implementation of active learning*

Teachers tended to view active learning as ...

- a way to give variation to teaching, and as an *active alternative* to more traditional teaching methods;
- a break in an otherwise sedentary school day;
- being about physical activity for its own sake rather than viewing movement as a general ingredient that could facilitate better learning;
- something separate and different from their core educational work;
- especially helpful with children who were judged to be struggling to acquire theoretical knowledge through traditional classroom teaching;
- not necessarily effective in facilitating learning;
- most applicable in physical education (PE) and mathematics.

#### *Factors that enabled teachers to implement active learning strategies*

1. The *ALP* course ...
  - was practically-oriented and experienced as fun, rewarding and inspiring;
  - developed teachers' knowledge, skills and confidence;
  - was inclusive, allowing any employee, including administrative staff to participate in the *ALP* course.
2. Teachers' receptivity to active learning ...
  - depended, in part, on their level of interest in physical activity in particular and active learning approaches in general;
  - was strongest in the period immediately following their participation in the course, and diminished over time.
3. The organizational context ...
  - supported implementation if there was a high degree of cross-organizational knowledge and awareness of the active learning concept – including among the leaders of the organization as there was less resistance to key ideas, including the goals of the *ALP*.

#### *Constraints on implementation*

1. The *ALP* course was limited in that ...
  - it was not sufficient for the sustained professional development required to maintain the profile of active learning;
  - it did not adequately address how to apply ideas to all curriculum subject domains.
2. Teachers' receptivity to active learning was lower ...
  - if they had greater attachment to more traditional teaching styles and/or other subject domains such as the arts;
  - if they were sceptical about the benefits of active learning in relation to educational outcomes (specifically their competency goals).
3. Pressures in the organizational context, such as ...
  - the influx of new courses, ideas and priorities tended to displace older ones, such that what was once fresh in teachers' minds gradually faded away;
  - the time involved in planning and preparation that active learning strategies required;
  - inevitable staff turnover in the organization, which tended to tip the balance of staff towards those who had not attended a course.

### *Outcomes associated with the ALP*

1. School-level outcomes
  - Using active learning changed the dynamics not only between teachers and children, but also between teachers as a group;
  - Using active learning led to teachers themselves being more directly involved in physical activity and play with the children which meant that the activity level and duration among the children increased, with more children participating in physical activity.
2. Teacher-level outcomes:
  - Increased knowledge and skills relating to how to vary their practice, alongside increased confidence to put active learning strategies into practice.
3. Child-level outcomes
  - Among kindergarten teachers, active learning approaches were viewed as contributing to a range of developmental outcomes, particularly motor development, learning mathematical concepts, colours, and developing communication skills, alongside social and emotional competence.

Teachers found it hard to identify specific outcomes for children from active learning approaches compared to other teaching methods.

### **Conclusions and action points**

The *ALP*, as a concept and course, has had some influence on developing teachers' knowledge, skills and confidence. However, its effectiveness in reaching its goals could be enhanced if:

- course facilitators with expertise in curriculum subjects beyond physical activity and sport became part of the *ALP* course team, including those with pedagogical expertise;
- the duration of the course was extended and structured to include repeated periods of learning, application and critical reflection;
- follow-up support was available to teachers from the *ALP* team.

The ways in which teachers implemented active learning ideas into their teaching indicated that there was less of a paradigm shift towards an organizationally-embedded approach to learning as hoped for and intended by the *ALP* team. If this remains the goal then it is necessary to look beyond teachers towards the organizational context.

Teaching styles are more likely to change if there are fewer organizational constraints. The work context would be more supportive if:

- the setting had a critical mass of *ALP*-educated teachers;
- there was strong visible support from the leadership in facilitating access to continued professional development (CPD) opportunities for teachers;
- the leadership strategically prioritised specific initiatives to limit the number and type to which teachers were required to respond;
- organizational strategizing was carried out in partnership with the municipality and county.

A theory of change model can be used as a design and planning tool assisting project teams to think through the underpinning theory of change: in other words, what can realistically be expected to change given the level of inputs (including funding) and the form of outputs in the *ALP* course? In other words, having identified the desired outcomes (at teacher, school and child levels), what is the best possible way of reaching them given the level of investment in the course? The theory of change model can also be used to develop systems for monitoring and evaluation of the *ALP* course in that by clearly identifying intended outcomes, thought can be given to what, how and when to measure them.

Significantly, these points have implications for a variety of stakeholders, not least those who fund the *ALP* course, alongside those with leadership responsibilities in educational institutions.



Høgskolen i Hedmark

<b>Tittel:</b> Sør-Østerdal – En region i bevegelse – Evaluering av Aktiv Læring-prosjektet			
<b>Forfattere:</b> Miranda N. Thurston og Ida Storberget			
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<b>Emneord:</b> aktiv læring, endringsteori, undervisningsmetoder, organiseringskontekst, evaluering			
<b>Sammendrag:</b>			
<b>Bakgrunn</b> I Norge, som andre steder, har bekymringen rundt økningen i overvekt, fedme og psykiske helseproblemer hos barn, samt rundt det økte frafallet fra skolen vokst. 'Aktiv læring' har vokst fram som en potensiell motvekt til disse problemene, da det stimulerer både til fysisk og mental aktivitet i læringssituasjoner. Denne evalueringen fokuserer på et spesifikt aktiv læring-prosjekt – Aktiv Læring-kursene, et underprosjekt i <i>Sør-Østerdal – En region i Bevegelse</i> -prosjektet, som tar sikte på å utvikle læreres aktive tilnæringer til læring.			
<b>Evalueringens målsettinger</b> <ul style="list-style-type: none"><li>• Å forstå hvordan 'aktiv læring'-konseptet har blitt operasjonalisert gjennom ALP-kursene;</li><li>• Å undersøke oppfatninger av ALP-kurset blant de involverte (lærere og kursholdere);</li><li>• Å bidra til en evidensbase som kan danne grunnlag for prosjektets videre utvikling.</li></ul>			
<b>Evalueringens metodologi</b> Tilnærmingen i evalueringen tar sikte på å frambringe kunnskap om hvordan ALP-kursene kan fremme endring i ønsket retning – mot bruk av aktive læringsstrategier. Evalueringen er en kvalitativ studie i liten skala – med et tverr-sektorielt studiedesign. I alt ble 28 lærere (seks menn og 22 kvinner i alderen 30 til 57) rekruttert fra fire barneskoler og fire barnehager. Åtte fokusgrupper ble gjennomført, åtte med lærere og én med en gruppe kursholdere. Alle fokusgruppene ble tatt opp på bånd, og transkribert ordrett i etterkant. Det ble også gjennomført observasjoner i tre barnehager. I analysen var tilnærmingen til datamaterialet tematisk, noe som innebar å identifisere temaer på bakgrunn av ideer og emner som var gjennomgående i hele data-settet.			
<b>Funn</b> <i>Aktiv læring modellen</i> <ul style="list-style-type: none"><li>• Målet med ALP-kurset var å introdusere lærere til alternative undervisningsmetoder og tilnæringer til læring som tilrettela for læring <i>gjennom og i bevegelse i alle fag</i>, ved bruk av 'lekende læring'.</li><li>• Lærere var mottakelige for aktiv læring-ideer og -aktiviteter, og beskrev sine erfaringer fra kurset gjennom å beskrive følelser av glede og moro, samt at de følte seg inspirert og motivert til å innlemme aktiviteter i sine undervisningsreportoarer.</li></ul>			

### *Implementeringen av aktiv læring*

Lærere tenderte til å se på aktiv læring som...

- en måte å variere undervisningen, og som et aktivt alternativ til mer tradisjonelle undervisningsmetoder;
- en pause i en ellers stillesittende skoledag;
- å handle om fysisk aktivitet for aktivitetens skyld, heller enn et bidrag til bedre læring;
- noe adskilt og annerledes fra kjernen av deres undervisningsarbeid;
- spesielt nyttig i arbeid med barn som angivelig strever med å tilegne seg teoretisk kunnskap gjennom tradisjonell klasseromsundervisning;
- ikke nødvendigvis effektiv i tilretteleggingen for læring;
- mest aktuelt i kroppsøving og matematikk.

### *Faktorer som gjorde lærer i stand til å impelmentere strategier for aktiv læring*

1. ALP-kurset...
  - var praktisk orientert og opplevdes som morsomt og inspirerende;
  - utviklet læreres kunnskap, evner og trygghet;
  - inkluderte alle ansatte i organisasjonen, også administrasjonsansatte.
2. Læreres mottakelighet for aktiv læring...
  - Avhang, delvis, av deres interesse for fysisk aktivitet spesielt og tilnærminger til aktiv læring generelt;
  - var sterk i perioden umiddelbart etter deres deltakelse på kurset, men ble redusert over tid.
3. Den organisatoriske konteksten...
  - støttet implementeringen hvis det var stor grad av kunnskap om, og bevissthet rundt, aktiv læring-konseptet i hele organisasjonen – inkludert dens ledere, fordi det da oppstod mindre motstand mot de sentrale målene med ALP.

### *Begrensninger for implementeringen*

1. ALP-kurset hadde begrensninger ved at...
  - det ikke var tilstrekkelig for den vedvarende profesjonelle utviklingen som kreves for å ivareta aktiv læring-profilen;
  - det ikke inneholdt ideer til hvordan bruke aktiv læring-tilnærmingen i alle de timeplanfestede skolefagene.
2. Læreres mottakelighet for aktiv læring var lavere...
  - hvis de hadde sterkere tilknytning til mer tradisjonelle undervisningsmetoder og/eller andre fagkretser, slik som estetiske fag;
  - hvis de var skeptiske til det faglige utbyttet (spesielt knyttet til kompetansemålene) av aktiv læring.
3. Press i organisasjonene, slik som...
  - tilstrømningen av nye kurs, ideer og prioriteringer hadde tendens til å erstatte det som tidligere var presentert for de ansatte – det som en gang var friskt i lærernes minne ble gradvis visket ut;
  - tiden som kreves til planlegging og forberedelse til aktive læringsstrategier;
  - uunngåelige utskiftninger av personale i organisasjonene, som virket å føre til en overvekt av ansatte som ikke hadde deltatt på kurset.

### *Resultater assosiert med ALP*

1. Resultater på organisasjonsnivå
  - Å bruke aktiv læring endret dynamikken, ikke bare mellom lærere og barn, men også lærere i lærergruppa;
  - å bruke aktiv læring førte til at lærere var mer direkte involvert i fysisk aktivitet og lek med barna, som igjen medførte et økt aktivitetsnivå blant barna og at flere barn deltok i fysisk aktivitet.

2. Resultater på individnivå (lærere)
  - Økt kunnskap og bedredet ferdigheter relater til hvordan å variere deres praksis, samt større trygghet i å praktisere aktiv læring.
3. Resultater på individnivå (barn)
  - Blant barnehagelærere ble aktive tilnærminger til læring sett på som viktig innen en rekke utviklingsområder, spesielt motorisk utvikling, læring av matematiske begreper, farger og språk, samt i utviklingen av emosjonell og sosial kompetanse.

Lærere syntes det var vanskelig å identifisere spesifikke resultater barna oppnådde gjennom aktiv læring, sammenlignet med gjennom andre undervisningsmetoder.

### **Konklusjon og mulige tiltak**

*ALP*, som et konsept og et kurs, har hatt noe innvirkning på utvikling av kunnskap, ferdigheter og trygghet hos lærere. Det er imidlertid trolig at kursets effektivitet, når det kommer til å nå de formulerte målene, kunne økt om:

- personer med ekspertise i andre fag enn kroppsøving og idrett tok del i gruppa med kursholdere, også de med pedagogisk kompetanse;
- varigheten av kurset ble utvidet og strukturert til å omfatte repeterte perioder med læring, praksis og kritisk refleksjon;
- det var tilgang til støtte og oppfølging fra ALP-personell for lærere.

Måten lærere implementerte aktiv læring i sin undervisning, indikerte at det i organisasjonene i mindre grad enn ønsket går mot et paradigmeskifte mot en slik tilnærming til læring *ALP*-teamet har mål om. Hvis et slikt paradigmeskifte fortsetter å være en *ALP*-målsetting, vil det bli nødvendig å vende blikket videre fra lærerne, og mot organisasjonen som helhet.

Det er større sannsynlighet for å oppnå endring i undervisningsmetoder hvis det er færre begrensninger i organisasjonen. Arbeidsforholdene i organisasjonen ville være mer støttende til aktiv læring hvis:

- det var overvekt av *ALP*-utdannede lærere;
- det var en sterk og synlig støtte for videreutdanning av lærere fra ledelse, og at det ble gitt mulighet for dette;
- ledelsen strategisk ville prioritere et begrenset antall kurstilbud som lærere må delta på;
- organisasjonenes strategilegging var gjort i samhandling med kommune og fylke.

En teori om endring kan være til hjelp som et design og planleggingsverktøy for prosjekt-grupper som ønsker å bidra til endring: med andre ord, hva kan man realistisk sett forvente at endres ved et nivå av påvirkning; *inputs* (inkludert finansiering), ut ifra de resultatene; *outputs*, man ser av *ALP*-kursene? Med andre ord, etter å ha identifisert ønskede resultater (på organisasjons- og individnivå), hvordan kan man på best mulig måte oppnå disse, gitt nivået av investering i kursene? Denne modellen kan også brukes til å utvikle systemer for å overvåke og evaluere *ALP*-kurs, og ved at ønskede utfall identifiseres kan man finne ut hvordan og når disse kan males.

Det er vesentlig at disse punktene vil være av betydning for en rekke interessenter, ikke minst de som finansierer *ALP*-kursene, og de med lederansvar i utdanningsinstitusjoner.



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# Chapter 1

## Introduction

### 1.1 Background and rationale

In recent years, there has been sustained political concern with children and young people's lives, particularly in terms of their development into active, healthy and well-educated individuals, capable of achieving their aspirations. These concerns can be identified in policies relating to the young in a number of countries, including Norway, where there has been heightened anxiety in recent years about the increase in overweight, obesity and mental health problems, as well as disengagement from school and early dropout (see for example, Folkehelseinstituttet, 2010). 'Active learning' has (re)emerged as a potential antidote to these concerns, associated as it is with improving processes of learning through cognitive engagement often alongside increasing levels of physical activity. The promotion of active learning in recent years, however, raises questions not only about its effectiveness in improving child health and educational outcomes, but also in relation to teachers' use of active learning styles. This report addresses both these issues in two different ways. Questions of effectiveness are explored through a brief overview of the research literature on active learning. The second issue is explored through an evaluation of a specific active learning project that sought to develop teachers' active learning styles. Well-conducted evaluation studies of such active learning projects are, however, limited. Given the increasing expectation in public health (as well as other policy arenas such as education) to focus resources on evidence-based projects, it is timely to reflect critically on the value of active learning projects.

### 1.2 The *Sør-Østerdal Region in Motion* project (Phase 1 2008-2012)

The *Sør-Østerdal Region in Motion* (*SØR-in-M*) project emerged in 2008 out of the interests and experiences (including feedback from local teachers) of a group of employees in the Department of Sport and Active Lifestyles at Hedmark University College in Norway. The initial activities centred on the development of a number of pilot courses for teachers based on an 'active learning' concept, which were delivered in local schools in 2008. Since then, *SØR-in-M* has developed into an umbrella project (facilitated through funding from various sources such as Gjensidigestiftelsen, Hedmark

County and the host municipalities) and comprises a number of sub-projects, of which the original active learning courses (referred to in this report collectively as the Active Learning Project – the *ALP* or, more specifically, the *ALP* course) are one. The *ALP* course was the specific focus of the evaluation presented in this report.

A key aim of the *SØR-in-M* project is to be a vehicle for public health, specifically through promoting sports and physical activity in all sections of the population. As a sub-project, the *ALP* contributes to this aim specifically by running two short courses for teachers in kindergarten, primary (barneskole) and lower secondary (ungdomsskole) schools (among other settings), which focus on active learning.

### **1.2.1 The *ALP* course specification**

Each *ALP* course comprises one session that typically lasts for three hours. Course 1, for example, offers teachers a variety of alternative approaches to teaching which centre on using physical activity in the learning process (En region I bevegelse, 2014). Each course is facilitated by a small team (approximately five people) from Hedmark University College, who work in various combinations depending on the size of the group of participants. At the time of the research all course facilitators had a higher degree in sport, outdoor life, recreation, public health, or other related area. (Some of the facilitators also had other roles on the *SØR-in-M* project.) Qualifications and expertise in other subjects, such as mathematics or languages, were however limited.

Administrative staff, educational staff and assistants can attend the course, the aim being to have as many people from an organization as possible participating. This was viewed by the project initiators as central to embedding active learning – as a concept and teaching style – within an organization’s culture. The course is practical in orientation in that it introduces participants to a variety of resources from an activity box alongside providing opportunities for experiencing active learning approaches and experimenting with ideas. Alongside these strategies, discussions aim to ‘inspire’ participants to reflect critically on how activities could be integrated into everyday teaching and learning. Discussions also relate to how active learning strategies can be adapted to various age groups and educational settings as well as different school subjects.

At the time of the evaluation the *ALP* courses had mainly been delivered to teachers working in relevant organizations in Hedmark County, with course delivery having been relatively recently expanded to Oppland and Akershus counties. During the period of interest (2009-2013), 136 kindergartens, schools and other organizations (such as voluntary sports clubs) had received courses. The number of children receiving active learning education is, however, unknown. Nonetheless, it may be reasonable to assume that most children from each of the 136 institutions were introduced to active learning activities in some way and to some degree, particularly in the immediate period following teachers' participation in the *ALP* course.

### **1.3 Evaluation of the *ALP* course**

In 2013-14, a formative evaluation of the *ALP* course was conducted. Evaluation has the potential to generate robust evidence of an intervention's<sup>1</sup> effectiveness. In broad terms, it typically involves attempting to assess change in relation to a project's stated goals, which are usually expressed in terms of group-level outcomes. Thus, 'what works' is viewed as the degree to which specified outcomes have been achieved. Evaluation of the effectiveness of an intervention such as the *ALP* course is, however, methodologically challenging for a variety of reasons. In particular, it is especially difficult in 'real world' situations to link (attribute) the intervention (rather than anything else) to the attainment of specific outcomes. Furthermore, few projects have the resources or the relevant competence to put into place appropriate mechanisms for evaluation, particularly in relation to measuring outcomes.

Nonetheless, in the absence of any systematic knowledge about the effectiveness of an intervention, a useful starting point is to seek to understand the project and its implementation using key 'stakeholder' perspectives – that is to say, those who are involved in the project in some way. The focus in this evaluation was on gaining insight into the *ALP* course from the perspectives of teachers who had participated in the course alongside the course facilitators. Such insights can provide the basis for identifying (i) how the 'problem' addressed by the intervention has been conceptualized (ii) how the

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<sup>1</sup> In the evaluation field, the term 'intervention' is used in a generic sense to indicate anything that has been developed and introduced into an environment to bring about change in some phenomenon. In this report the term is used to refer to the *ALP* course in order to indicate that it was developed and delivered in various settings with particular goals in mind.



intervention has been designed to address the ‘problem’ (iii) what the goals – explicit and implicit – of the intervention are and (iv) what values and assumptions underpin the intervention in terms of a ‘theory of change’ (Weiss, 1995).

#### **1.4 Aims of the evaluation**

The overall aims of the evaluation were threefold:

- to understand how the concept of ‘active learning’ has been operationalized in the *ALP* course;
- to explore perceptions of the *ALP* course among those who had been involved in its delivery (teachers and course facilitators);
- to contribute towards an evidence-base from which to formulate recommendations that could be used to inform decisions about the future development of the *ALP*.

#### **1.5 Research Questions**

The following research questions underpinned the *ALP* evaluation:

- what are the key components of the active learning conceptual model developed by the *ALP*'s initiators?
- how have teachers implemented active learning ideas in the everyday settings within which they work?
- what are the enabling and constraining factors that help to explain the form, extent and durability of active learning implementation?
- what outcomes associated with the *ALP* can be identified at school-, teacher- and child-level?
- to what extent and for what benefit can a ‘theory of change’ model be applied to the *ALP*?

#### **1.6. Structure of the report**

This report is organized into a number of chapters. Following Chapter 1, the Introduction, Chapter 2 provides a brief and critical overview of the existing research relating to active learning. Chapter 3 describes the study design and methods used in the evaluation. This Chapter also provides an overview of a theory of change approach and

how it can be applied to the evaluation of the *ALP*. Findings from the study are presented in Chapter 4 and discussed in Chapter 5. Finally, an overall assessment of the operationalization and impact of the project is presented, and recommendations for future development are discussed.

## Chapter 2

### Active learning: theory and practice

#### 2.1 Introduction

Chapter 2 provides a brief overview of the active learning concept and its application in the education field, drawing on relevant research. In so doing, the Chapter aims to provide a concise background to the theory and practice of active learning. Before exploring the concept of active learning, however, it is worth saying a few words about pedagogy, broadly defined as the art, science and ‘craft’ of teaching designed consciously to enhance learning (Watkins & Mortimer, 1999). While a country’s national curriculum will set out, in varying degrees of detail, *what* is to be taught, it does not prescribe *how* it is to be taught (Green, 2008). This is particularly the case in Norway which has a highly decentralized education system in which the municipalities have considerable discretion over the implementation of education policy and organization of education at a school level (Organization for Economic Co-operation and Development, 2013). There is, however, some consensus among educationalists that *how* children and young people are taught is as important as *what* they are taught (Capel, 2005). The ‘how’ of teaching and learning is usually discussed in terms of teaching ‘strategies’, ‘approaches’ or ‘styles’, with research over several decades having focused on what are the most ‘effective’ teaching styles for learning. Current debates about teaching styles in Physical Education (PE), for example, draw on the classic work of Mosston (1966), which describes a spectrum of 11 styles ranging from direct, formal, teacher-centred (command style) to indirect, informal, student-centred approaches (‘self-teaching’ style) (Mosston & Ashworth, 2008). In this evaluation, ‘active learning’ was conceptualized as a general teaching *style* or *approach*, that is to say, related to the ‘how’ of teaching *any* curriculum subject. As the following section illustrates, active learning has much in common with Mosston and Ashworth’s teaching styles located towards the informal student-centred end of the spectrum.

#### 2.2 Conceptualizing ‘active learning’

A brief review of the academic literature relating to active learning indicates that it is an ambiguous term, used in a variety of contexts and subject disciplines and in a diverse number of ways. Bonwell and Eison (1991, p. iii), for example, argue that “educators’

use of ‘active learning’ has relied more on an intuitive understanding of the concept than on a common definition”. When used to describe specific projects it therefore requires careful scrutiny if their goals, methods, values and assumptions are to be clearly understood. Two over-lapping conceptualizations seem to have become particularly evident in recent times. First, there is a well-established academic literature on active learning that emphasizes teaching styles that stimulate *cognitive* processes of learning. In this vein, Prince (2004, p. 223), for example, defines active learning as “any instructional method that engages students in the learning process ... [requiring them] to do meaningful learning activities and think about what they are doing”. Thus, the definition points towards the importance of children and young people doing more than passively sitting and listening. Accordingly, learning, it is argued, should involve children in carrying out tasks that include interaction with others to stimulate thinking, reflection, and so on.

Problem-based, collaborative, and co-operative learning are illustrative of active styles of learning that have been discussed in the context of classroom-based teaching and learning strategies over several decades. Such teaching styles are viewed as likely to increase the effectiveness of learning alongside improving children’s dispositions towards, and engagement in learning, particularly if they involve opportunities for practical, experiential learning (Maynard & Waters, 2007). Research has shown, for example, that young people perceive themselves to be more physically and cognitively involved when these styles of teaching are used (Sanchez, Mark Byra, & Wallhead, 2011). However, the extent to which active learning is effective remains a matter of some debate. Notwithstanding the well-recognised challenges of carrying out educational research in this field, academics working within a variety of disciplines and settings have concluded that the evidence for the effectiveness of active learning is compelling (Bonwell & Eison, 1991; Michael, 2006; Prince, 2004).

A broader view of active learning has become prominent in recent years. This perspective draws on these established views while also emphasizing a role for physical (bodily) movement: an active mind *and* an active body. The importance of engaging both physical and mental activities in learning situations has been debated for many years. Dewey (1980), for example, emphasized how bodily activity and mental cognition – *doing* and *learning* – were closely linked. More recently, evidence has

emerged to suggest that physical activity, cognitive function and academic achievement are associated (Donnelly & Lambourne, 2011). Although the causal mechanisms are not understood, a recent review concluded that “Achieving adequate physical activity and maintaining aerobic fitness in childhood may be a critical guideline to follow in physical as well as cognitive and brain health” (Khan & Hillman, 2014, p. 138). Based on this evidence, an expanded conceptualization of active learning – that is to say, one that incorporates physical activity into active teaching styles – may have the potential to lead to a number of beneficial developmental outcomes, including those relating to learning.

This second rationale and conceptualization of active learning tends to draw, to varying degrees, on well-established Scandinavian ideas related to outdoor learning – using environments beyond the traditional indoor classroom – reflected in such ideas as the ‘outdoor school’ (Brodin, 2009; Prince, 2012) and ‘forest school’ (Maynard, 2007; O’Brien, 2009). Mygind (2012), for example, argues that being taught outdoors can have benefits for social relations and levels of physical activity, as well as learning more generally.

### **2.3 The development and use of active teaching styles**

Research suggests that both within and beyond the classroom environment, active learning styles are not always used by teachers (Humberstone & Stan, 2011; Prince 2012; Waite 2010; Waite, 2011). The reasons for this are likely to be complex, but the role, capabilities and confidence of teachers as well as the context within which they carry out their day-to-day work are likely to be key factors (Waite, 2010). This raises questions about the extent to which teachers are prepared for using active learning styles through their initial teacher education programmes as well as through subsequent continuing professional development (CPD) opportunities. Research in this field, however, suggests that shifting teachers’ values and beliefs during their initial teacher education is difficult (Curtner-Smith & Meek, 2000). Moreover, the impact of education can be ‘washed out’ relatively quickly, as teachers respond to the immediate pressures of their everyday lives (Capel, 2005; Stroot & Ko, 2006). Such contextual constraints have also been shown to moderate teachers’ self-efficacy, that is to say, their belief in their ability to significantly affect their pupils’ learning (Zach, Harari & Harari, 2011).

CPD opportunities may provide a vehicle for helping teachers develop active learning styles, particularly relevant here given that the *ALP* course was a form of CPD. Keay (2007) has shown that teachers' receptivity to new ideas introduced during CPD is likely to increase if it can be shown they have immediate practical benefits. Furthermore, planned support following CPD can increase the extent to which it can be transformative (Harris, Cale' & Musson, 2012).

## **2.4 Conclusion**

Because active learning – particularly the broader conceptualization outlined above – may have the potential to improve processes of learning, including those relating to social, cultural and physical capital development in children, it is likely to remain an attractive idea to policymakers and practitioners alike in the current climate of concern about children's mental and physical health as well as their eagerness to learn and achieve. However, this brief review of the research on active learning illustrates that attempts to shift teaching styles in a particular direction may well be limited in terms of what can be achieved.

## Chapter 3

### Study design and methodology

#### 3.1 Introduction

This chapter provides a description of the research process. Given the limited resources and timeframe available, the research sought to combine speed with trustworthiness. Its open-ended exploratory approach means that the findings have the potential to provide some preliminary insights about the *ALP* that, alongside critical reflection, can inform decision making about its future development and direction. A strength of the evaluation approach adopted here is that it adds insights from key informants about their experiences of the *ALP*, as well as, in the case of teachers, how ideas they were introduced to were implemented in practice. Thus, the evaluation has the potential to provide some explanations for how small-scale interventions such as the *ALP* might influence teachers' everyday practice.

#### 3.2 A Theory of Change approach to evaluating the *ALP* course

Within the field of evaluation, a 'theory of change' approach has been popularised in recent years, especially in the public health and health promotion arena, as a planning and implementation tool as well as providing the basis for a well-grounded evaluation of a project, service or programme. Connell and Kubisch (1998) define a theory of change approach not as a methodology as such but as a general orientation to thinking about evaluation in terms of 'a systematic and cumulative study of the links between activities, outcomes and contexts of the initiative'. The approach provides a process for bringing to the surface and articulating a theory of change by critically reflecting on the goals, structure, content and implementation of a project and the putative links between them, all factors widely recognised as being central to understanding the impact of interventions (Green & South, 2006).

A further benefit of a theory of change approach is that it can guide what and when to measure, as well as what the expected threshold levels of change might be (Connell & Kubisch, 1998). It can, therefore, not only assist the development of evidence-based programmes and projects but also provide a framework for the evaluation itself. For these reasons, Connell and Kubisch (1998) argue that a theory of change approach can

strengthen the scientific case for linking (attributing) the intervention with specified outcomes. In particular, the more events predicted by the theory occur, the more confidence there can be that the theory has explanatory power.

In ideal circumstances, a theory of change would be developed during the planning phase of a project. However, interventions present difficulties for evaluators because their designs tend to be underspecified at the start. Thus, this evaluation set out to clarify the theory underpinning the *ALP* intervention. This process itself can be beneficial because it has the potential to bring into the open multiple theories of change, based on the differing views among stakeholders of what is needed to bring about change in the desired direction.

### **3.3 Study design**

The study was designed to address the research questions set out in Chapter 1, Section 1.5. A cross-sectional study design was used in this small-scale exploratory study. A qualitative approach was adopted in order to enable a relatively detailed exploration of the *ALP*, especially from the perspectives of those who were the primary target of the intervention.

Preliminary work was undertaken as preparation for entering the field. This involved reading available documents relating to the *SØR-in-M* project in general and the *ALP* in particular. This was followed by a meeting with two of the *ALP* course initiators and developers in October 2013. The purpose of this meeting was to develop a deeper understanding of the origins and development of the project than could be obtained from the documentary sources alone. Thus, the meeting enabled the researcher to ask questions about pertinent issues and become more informed about the history of the *ALP*. In so doing, it informed the identification of issues to follow up during the focus groups and thus represented the first stage in the formulation of questions for the focus group schedule.

### **3.4 Recruitment to the study: settings and participants**

The preliminary work also informed the selection of organizational settings and informants. A list of all the settings in which the *ALP* had been delivered between 2009



and 2013 was used as the sampling frame (extracted from the project webpage: <http://enregionibevegelse.no/>, accessed November 2013). From this, differing ‘implementation settings’ were purposively sampled, a deliberately non-random strategy used here to obtain diversity in the sample with regard to key variables (such as differing lengths of time since ALP courses had been delivered, urban/rural locations, and so on). The sample was restricted to educational settings (kindergartens, primary and secondary schools).

Initially, e-mail was used to contact the lead person in the organization. This was followed by at least two telephone calls, after which no further contact was attempted. In the case of secondary schools, a letter was also used in response to the request from the head teacher for written information about the research. Table 3.4.1 summarizes the recruitment process and outcomes.

**Table 3.4.1 Overview of recruitment**

<b>Implementation setting</b>	<b>Contacted</b>	<b>Consented</b>	<b>Participated</b>	<b>Declined</b>	<b>Did not respond</b>
Kindergarten	13	4	4	3	6
Primary school	15	10	4*	5	0
Secondary school	6	1**	0	4	2
Total	34	14	8	14	6

\* The difference between the number consenting and those that participated is accounted for by the fact that within the time frame of the study it was not possible to arrange a mutually convenient time to carry out the fieldwork.

\*\* One school initially consented but later declined.

As Table 3.4.1 illustrates, recruiting kindergartens, primary and secondary schools to the study presented difficulties for a variety of reasons. All organizations found it difficult to accommodate the research, given all their other priorities. Secondary schools, however, were the most problematic to recruit. Reasons given to account for their decision not to participate in the research included pressure of time, particularly when they saw no direct benefit from taking part in the study. Furthermore, they perceived that a relatively small number of teachers were actually using *ALP* activities given the extensive staff turnover since the course had been delivered, including among

those at a management level. Some organizations approached chose not to respond at all. Thus, the final sample was a convenience sample, comprising those organizations that opted into the study and found time within their schedules to accommodate the field work during working hours and within the timeframes of the research. These recruitment difficulties make the variation in settings more limited than intended at the outset both in terms of type of educational institution (no secondary schools, for example) as well as geographical variation, most schools and kindergartens being relatively locally-based. Thus the full range of settings in which the *ALP* had been delivered were not represented in the final sample.

Once consent to participate in the study had been obtained from the appropriate head of the organization, participants were approached for inclusion in the study. The aim was to include employees who had attended the *ALP* course, in addition to those who had *not* attended the course but who had made use of its materials and/or approaches in their work having been introduced to these by colleagues. Even in those schools where consent was given to recruit staff, some teachers did not give their consent to take part in the research for various reasons.

Table 3.4.2 provides an overview of the final number of settings recruited to the study, alongside information about their geographical location and the time since the *ALP* course was delivered. Overall, this sampling process yielded 28 teachers (six males and 22 females) who consented to participate in the study from four primary schools and four kindergartens, located in both urban/semi-urban and more rural surroundings. The ages of the participants ranged from between 30 and 57 years old.

**Table 3.4.2 Overview of the educational settings recruited to the study**

<b>Implementation setting</b>	<b>Participated in ALP in ...</b>	<b>No. focus group participants</b>	<b>Location</b>	<b>Data collection methods</b>
Kindergarten	2011	3	Rural surroundings, Oppland	Focus group and observation
Kindergarten	2011	2	Town, Hedmark	Focus group and observation
Kindergarten	2012	2	Rural surroundings, Hedmark	Focus group and observation
Kindergarten	2012	2	Town, Hedmark	Focus group
Primary school	2009	4	Town, Hedmark	Focus group
Primary school	2011	6	Rural surroundings, Hedmark	Focus group
Primary school	2011	5	Town, Hedmark	Focus group
Primary school	2013	4	Rural surroundings, Oppland	Focus group

### **3.5 Data collection methods**

The primary data collection method was focus groups with key informants, complemented by observations of teaching sessions where possible. There were two key stakeholder groups: teachers, and *ALP* course facilitators. In both cases, focus groups were used to explore experiences and views of the *ALP* course, through group interaction and discussion. The focus groups with teachers included: (i) some factual questions about the participants (age, role, qualifications, and so on) (ii) a section of short factually-oriented questions about the *ALP* and (iii) a series of open-ended questions relating to their experiences of the *ALP* course, including its likely outcomes, as well as their reflections on implementing *ALP* ideas and activities in their everyday work settings. The focus group schedule for teachers can be found in Appendix 1. All focus groups were carried out at mutually convenient times at the teachers' workplaces during work hours. The size of the focus groups varied between 2-6 people, depending on teachers' availability and willingness to participate in the evaluation as well as the

size of the school and the number of employees therein. All the teachers had participated in *ALP* Course 1.

In addition, five *ALP* course facilitators participated in one focus group, the purpose of which was to explore their perceptions of the *ALP* course and their experiences of delivering it to teachers. The focus group schedule for course facilitators can be found in Appendix 2.

All focus groups lasted between 30-60 minutes and, with the consent of participants, were audio-recorded and subsequently transcribed verbatim.

Observation of lessons that incorporated *ALP* activities was also carried out in three kindergarten settings. It was not possible to conduct observations in other settings for pragmatic reasons. Given the limited resources for the evaluation, including the amount of researcher time, more than one visit to each research setting was not feasible.

The main purpose of the observation was to assist in understanding how active learning approaches were being implemented in the everyday settings of the kindergarten. Observation seeks to be purposeful and systematic and uses watching and listening to interactions that take place in 'real life' (Kumar, 1996). An observation guide was developed and used to give structure to the observations, with notes being taken to describe the physical venue, the activity and the interactions that took place (see Appendix 3). The notes were analysed descriptively and used to add context to the views of participants where appropriate.

Use was also made of existing data sources, including documentary sources (quantitative and qualitative) that related to the project's monitoring and reporting processes, in order to build up a picture of the project's activity and outputs.

### **3.6 Data analysis**

Exploratory evaluation requires synthesis of data from a variety of sources in order to create a picture of what has taken place, what the likely consequences are of the project,

as well as seeking to understand and explain why events have unfolded as described. This final report provides this synthesis.

In keeping with the qualitative approach used in the evaluation, a thematic approach to the analysis of data generated through the focus groups and observations was taken. This involved a process of reading and re-reading transcripts and observation notes and identifying themes on the basis of recurring ideas and topics across the whole data-set. This process was guided by the analyst's consideration of which recurring ideas and topics were most relevant to the research questions posed. Discussion of emerging themes between the two authors meant that initial thematic ideas were refined during the analytic process.

### **3.7 Research ethics**

Participation in the research took place on the basis of informed consent. This included negotiating access to research settings (through the key gatekeeper, such as a head teacher) as well as in relation to individual research participants (teachers and facilitators). A participant information sheet was provided to all potential participants, sent via e-mail and delivered on paper when visiting the research setting. This explained the nature and purpose of the research, why potential informants had been chosen for inclusion in the research, what would happen to their data if they participated, and who was funding the research. Participants were asked to sign a consent form and informed that they could withdraw from the study at any time. Consent was specifically requested to audio-record the focus group in order to ensure that there was an accurate record of what was said. A copy of the participant information sheet and consent form can be found in Appendix 4 and Appendix 5 respectively.

All data were treated confidentially, stored securely on a password protected computer or other secure place if in hard copy (researcher's office), and destroyed on completion of the project. In the presentation of findings, settings and individuals have been anonymised; thus, no names are used in this report. Quotations from individuals are used to illustrate themes and are identified only in relation to whether the participant was a (primary) school teacher or a kindergarten teacher. For simplicity, the term 'teachers' has been used to refer generically to the research participants from any

educational institution. The term 'facilitators' has been used to refer to those research participants who had been involved in the delivery of the *ALP* course.

The study was reported to the Norwegian Social Science Data Services in May 2013.

## Chapter 4

### Findings

#### 4.1 Introduction

This Chapter presents the findings from the research. Building on the outline presented in Chapter 1, it begins with a description of the *ALP* conceptual model as a starting point for developing the theory of change on which the project was based. This description has been drawn from discussions with a variety of stakeholders and documents relating to the project. The findings are then organized to address the remaining research questions set out in Chapter 1, Section 1.5.

#### 4.2 Key components of the active learning conceptual model

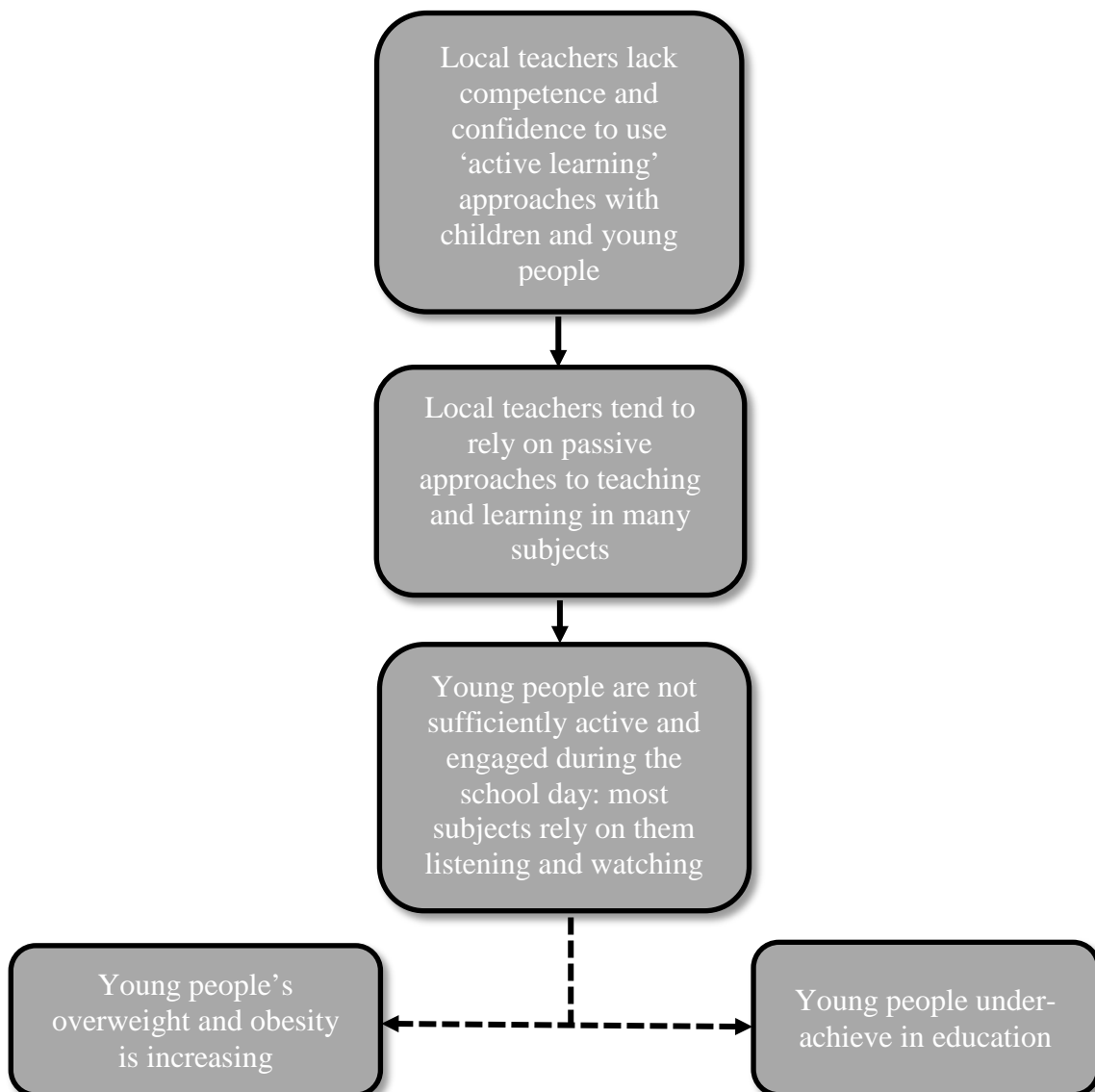
At the time of the fieldwork (Autumn 2013-Spring 2014), the *SØR-in-M* project was described as a regional ‘competence network’, which comprised a number of sub-projects collectively focused on promoting recreational sport and physical activity. Two specific interventions (*ALP* courses) had been developed: ‘*Active Learning – a contribution to variety*’, and ‘*Active Learning – basic exercises based on a playfulness concept*’ (En region i bevegelse, 2014). Each intervention has three interlocking components: an ‘activity box’ containing resources to support various activities; an ‘ideas booklet’, to support the use of resources in the activity box and a practically-oriented course for teachers. The ‘activity box’ contains a selection of resources that can be used to organize and carry out simple games and activities which are described in a series of ‘ideas booklets’ adapted for kindergarten, schools and voluntary sport organizations. Such materials include dice, bean bags and cones. During the course, participants used some of these resources in various activities. *ALP* course participants receive the activity box with the relevant ideas booklet at the end of the course.

In terms of conceptualization, the *ALP* course was initiated in response to a number of local concerns. The initiators’ experiences had given rise to the general perception that local schools, in common with schools elsewhere in Norway, tended to rely on passive approaches to learning, which emphasized theoretical abstract knowledge developed in the classroom. Notwithstanding the diversity of individual educational settings, this meant that children could spend a large proportion of their time at kindergarten or

school sitting down in traditional classrooms. On the basis of these perceptions, the initiators' aim was to introduce those working with young people in these educational (and other) settings to alternative teaching and learning approaches that facilitated learning *through*, and *in motion* in *all* subject areas.

Figure 4.2.1 represents these concerns as well as the proposed links between them that formed the basis for the development of the *ALP* course. It is presented as the first stage in attempting to develop a theory of change for the *ALP*. According to this model, teachers are viewed as central to achieving higher order and longer term goals connected to educational achievement and healthy weight gain.

**Figure 4.2.1 Conceptualization of the problem the *ALP* course was addressing**





The *ALP* model is based on the concept of ‘playfulness in learning’, a core element of which is physical movement. A key assumption is that this approach can make learning in all subjects not only more fun but also more effective. This is because, in theory, the experiential character of active learning means that young people have a stronger engagement in the learning process and, furthermore, that being physically active in some way further strengthens their involvement and enjoyment.

A key component of *ALP* course delivery was the group of facilitators. They collectively viewed their role as introducing teachers to a range of activities as a starting point for thinking about active learning in the educational setting. Rather than presenting the course as ‘*the gold standard*’ for how active learning should be done, the aim was to provide ideas for how teachers could integrate activities that involved movement into their practice, shifting it towards an active teaching style in the process. Thus it was viewed as a part of their CPD as a teacher. As one facilitator explained:

*[...] this course doesn't need to revamp anything: it's all about giving ideas, and making people think just slightly differently.*

Processes of social interaction between facilitators and course participants were the means through which feelings of enjoyment and fun, being inspired and motivated to build activities into their teaching repertoire, and so on, were generated during the course. Moreover, teachers viewed the facilitators as knowledgeable, enthusiastic and fully committed to the active learning concept, which was consistently communicated in a variety of ways throughout the course. Facilitators were also viewed as valuing everybody's effort, regardless of their performance, skill level or physical condition. This was appreciated by the teachers, not least because of the importance of including all children in learning activities regardless of their competence. Furthermore, ‘*they also asked good questions, which made us think somehow*’ (school teacher). For some participants, however, the pace of the course was too rapid, limiting how well they could assimilate new information regarding the organization of activities.

### **4.3 Implementing active learning: from course participation to changing practice**

A central idea underpinning the *ALP* course was that once teachers had been introduced to and experimented with the new ideas and materials, they would be inspired to integrate these into their everyday practice. The combination of the practically-oriented course supported by the activity box and ideas booklet was viewed by the course

initiators as a critical factor in initiating change within organizations. (The website also reinforces this view.) It was thus envisaged that teachers would create learning opportunities based on the active learning concept so that, in turn, children and young people would experience new ways of learning through physical activity. The *ALP* team, including the course facilitators, were bystanders in the implementation process once the course was over, however.

To date, little is known about how teachers who have been on an *ALP* course integrate active learning into their everyday practice. Observational data can provide a useful starting point in understanding this process. Figure 4.3.1 provides a description of an observed kindergarten lesson in which active learning activities were introduced into teaching and learning. It illustrates how specific ideas explored on the *ALP* course had been adapted and integrated into practice.

Analysis of observations alongside the qualitative data from the focus groups with course participants suggested that although the *ALP* model had been generally well-received, it was mainly viewed as a way to give variation to teaching, and as an *active alternative* to other, more traditional teaching methods. It was also viewed as a *break* in an otherwise sedentary school day, rather than as a general pedagogical approach, such pauses being viewed as important in allowing children to regain the concentration required to engage in more traditional classroom-based activities. Thus, it was something to be applied strategically, to help structure the school day, and not be over-used. To some degree, participants expressed a lack of confidence in the active learning approach as a pedagogy; in other words, there was some doubt that this teaching style could lead to the development of subject knowledge. One school teacher commented:

*Yes, variation will be the key word perhaps. I also feel that it is not a teaching method, but a fun alternative occasionally; I would not use it too much because I do not feel confident that they learn enough through it.*

**Figure 4.3.1 Description of an observed session in kindergarten**

Observation focus	Recorded observations
<i>Date, time and setting (e.g. inside/outside) of activity</i>	<ul style="list-style-type: none"> <li>• 10.45-11.45. Approximately 50 minutes of AL activities, followed by activities run by children. Inside – sports hall.</li> </ul>
<i>Who is in charge?</i>	<ul style="list-style-type: none"> <li>• Activity led by one of the employees.</li> </ul>
<i>Who else is involved?</i>	<ul style="list-style-type: none"> <li>• 5 other adults working in the kindergarten</li> </ul>
<i>How many children are present?</i>	<ul style="list-style-type: none"> <li>• 14, from 3-5 years old, both boys and girls. Notable variation in motor development within the group</li> </ul>
<i>How does the session start?</i>	<ul style="list-style-type: none"> <li>• Gathering children into a circle, the leader then explains what to do. Children allowed to ask questions.</li> </ul>
<i>What is taking place?</i>	<ul style="list-style-type: none"> <li>• 4 different activities               <ul style="list-style-type: none"> <li>❖ Scarf – throw in the air, catch with head, foot, back. 10 minutes. All children and adults participating. Active 8 of 10 minutes.</li> <li>❖ Bean bags – throw, catch, from a line. Competition. All children and adults participating. 10 minutes. Active all the time.</li> <li>❖ Ribbon game – (Nappe hale) – on a limited area. Steal the ‘tail’ of the others. 15 minutes. All children participating. All adults participating. 2 minutes to get the activity started.</li> <li>❖ Numbered cones, dice – throw, count, run the right number of cones and back to starting point. 20 minutes. Children participate on their own initiative. Organized by one adult</li> </ul> </li> </ul>
<i>What materials are used?</i>	<ul style="list-style-type: none"> <li>• Silk scarves, dice, balls, ribbons, ‘bean bags’, cones</li> </ul>
<i>What teaching style(s) is used?</i>	<ul style="list-style-type: none"> <li>• Individual work but within a group, problem-based mainly, supported with some instruction.</li> </ul>
<i>How does this activity relate to the Sor-R-in-M objectives, and the ALP aims?</i>	<ul style="list-style-type: none"> <li>• Physical activity in focus, physical movement approach to learning of numbers and colours, words and language</li> </ul>
<i>Assessment of children’s engagement and enjoyment of the activities</i>	<p>Attentive children, good concentration on tasks periodically, the adults playing with the children, giving positive feedback and supervisor. Mostly, the children are allowed to explore and solve challenges on their own. High activity level, clear expression of joy, accomplishment and well-being. Fun. Language training through clear and conscious use of the names of the materials. Mathematical learning objectives – use of dice and cones with numbers. Counting. Low levels of conflict, no-one was excluded; all in the group participated. Distinct sense of achievement.</p>
<i>How does the session close?</i>	<p>Makes transition into ‘free’ activity, not organized by adults</p>

Thinking in terms of a theory of change, it was hypothesized that, at the very least, if new ideas were to be integrated into practice following attendance on the *ALP* course, then not only must teachers be receptive to the central ideas to which they have been introduced and able to adapt them to their specific situation, the organizational context must also be supportive. However, the unfolding process of changing practice was likely to be influenced by several enabling and constraining factors, which, in the reality of teachers' everyday lives ebbed and flowed on a day-to-day, week-to-week basis, with consequences for the extent and form of change towards active learning styles. These issues are explored further here and in Section 4.4 below.

How active learning was implemented in organizations was shaped by how teachers made sense of what they had learnt on the *ALP* course. A common interpretation was to view active learning as being about *physical activity* for its own sake rather than viewing movement – particularly that based on a playfulness concept – as an ingredient that could facilitate better learning. As indicated above, some degree of scepticism was evident about this latter point and this seemed to influence how, when and how often active learning was integrated into practice. Teachers viewed their role as primarily concerned with working towards the written competency goals and achieving specific learning outcomes, a role which they viewed as hard to let go of in pursuit of other physical activities. This point further illustrates the tendency among the teachers in this study to view active learning as something separate and different from their core educational work. One school teacher expressed it in the following terms:

*... counting and maths concepts is one thing, being physically active is another.*

Although scepticism about active learning approaches and the degree to which they could facilitate the achievement of learning outcomes was evident, a belief was also expressed that bodily movement could contribute to children's learning. For example, one school teacher said that '*... one learns through using the entire body; we believe in that at this school*' and another talked more specifically about how being active during learning could be beneficial, saying:

*I think and I feel, and I also learned that linking physical activity with academic learning, it stimulates the brain very well, for example to jump at the same time as learning stuff ...*

Based on these kinds of ideas, one way in which teachers used the active learning concept was in terms of integrating theory with practice. Thus, it was combined with traditional approaches in mutually reinforcing and complementary ways. For example, one school teacher said:

*We can see that, for example in maths, that with the cards with numbers and the dice, when we do that theoretically in the classroom, and go outside to do the same – the more arenas of learning, the better.*

PE and mathematics were the subjects most frequently mentioned by teachers as suitable arenas for utilizing active learning ideas with the purpose of learning in mind, additional to the physical activity itself. This related to their view that it felt ‘*natural*’ to use the active learning approach in these subjects. They explained that they could see the ‘*transfer value*’ from the physical activities to the subjects more clearly when actually working with numbers, for example, which were a core aspect of the subject’s competency goals. One school teacher expressed it thus:

*... of the subjects, maths is what I have been thinking about most in terms of learning outcomes of doing this. That is what has become a natural part of the activity.*

Views varied concerning the appropriateness of activities for different age groups. In primary schools, active learning approaches tended to be used with children of all ages. In kindergarten, teachers were more likely to use the activities with the older children, (from three to five years old). With younger children, active learning tended to be simplified and often incorporated into free activities, which involved the activity box materials but which allowed children to choose how to use, for example, the bean bags or the dice. In kindergarten the view was expressed that active learning provided a way of introducing the children to exciting but safe activities through which they could learn a variety of skills. This illustrates how informants were able to use active learning in various ways, adapting activities to the age and setting in which they worked. In particular, active learning approaches were viewed as being especially helpful with children who were judged to be struggling to acquire theoretical knowledge through traditional classroom teaching. Stimulating and using all the senses during the learning process was viewed as increasing children’s motivation to learn, particularly among those who were struggling. One school teacher explained it thus:

*... especially for those who fail in the theoretical approach, when you sit in the classroom, it might help a few more pupils to understand when we play ...*

These ways in which teachers implemented active learning ideas into their teaching suggest that there has been less of a paradigm shift towards an organizationally-embedded approach to learning as hoped for and intended by the *ALP* team. Nonetheless, within this broad pattern of implementation there was variation in how course participants had integrated active learning into their work with children, both in terms of the extent as well as the purposes for which it was used. These issues are explored further below in terms of understanding the factors that enabled and constrained implementation.

#### **4.4 Shaping implementation: enabling and constraining factors**

Using a theory of change approach implies that the *ALP* course occupies a central position in initiating change in teachers' practice. Teachers' views on the extent to which it enabled them to shift their practice towards active learning is, therefore, important to understand, particularly if it facilitates identification of the specific aspects of the course that were perceived as significant to teachers. Findings from the research suggest that for teachers, the key trigger was that the course was *practically-oriented*. Thus, they experienced and learnt how to organize activities. Moreover, they experienced these activities as '*fun*' and '*rewarding*' and, in the same vein, thought they would be enjoyable for children. Although teachers were sometimes familiar with the activities and games, the course not only offered a new '*twist*' to the activity but also ways of using the activities with different objectives in mind. They therefore developed a desire to introduce such activities into their everyday work as soon as possible, and felt sufficiently confident to do so. For example, one school teacher said:

*We had so much fun ... it was real fun, and it was the activities that were captivating ....*

And one kindergarten teacher remarked:

*Yes, I was very inspired after we finished the course.*

Teachers identified their increased *confidence* in how to arrange, explain and organize active learning as a key factor in enabling them to develop their practice. To be confident in these things, it seemed necessary for teachers to try things out for

themselves in a supportive context, which the course, through the facilitators, provided. Furthermore, the practical introduction to activities and resources was regarded as important because it gave rise to feelings of ownership of the active learning concept. For example, one school teacher explained:

*And it was the kind of exercises that we could do with the kids the next day. It's inspiring when it is that specific to us; like 'this I can do in my teaching tomorrow!'*

However, for some school teachers, a major constraint on their use of active learning was the time involved in planning and preparation, as one teacher explained:

*... that is not how our days are. You need a lot of time to do the preparations, and that is the weakness with this programme.*

The ideas booklets, however, were viewed as much less important and, among some participants, the level of knowledge and awareness about the booklets was limited (even though they were part of the activity box). In fact, it seemed that the likelihood of teachers using activities illustrated and explained in the ideas booklet but which they had not had the opportunity to experience and work with on the course was very low. Thus, although the resources were generally regarded positively, some were rarely if ever used (for example, balls and scrabble-based materials), teachers tending to use a small group of favoured items. In a similar vein, teachers thought that more time on the course needed to be given to how active learning in general and activities in particular could be connected to *all* school subjects. Also, those working in kindergarten would have liked further orientation of the examples for the youngest children:

*I work with 2-3 year olds, and I would have liked to learn more activities appropriate to that age group too, not only for the oldest children, those that are soon starting school ... we could adapt the activities ourselves, but some examples could have helped us start and to use it more.*

The views about the booklets might imply that they were not sufficiently integrated into the *ALP* course for participants to appreciate their potential value and significance. In addition, it might indicate the value of (active) experiential learning – learning by doing – a finding that parallels the aim, purpose and rationale for using active learning styles with children. Thus, through the experiential approach used on the *ALP* course teachers assimilated new knowledge and developed new skills, as the following comment illustrates:

*... in this course we did many exercises, and it is so much more active and fun than just sitting down hearing activities being explained to you, or see it on pictures. (Kindergarten teacher)*

The concept of ‘activity boxes’ was a recurring theme in focus group discussions with two differing views evident. One view expressed was that gathering the resources together in one box provided a practical solution to the efficient deployment of resources in indoor and outdoor arenas, as well as a visible symbol of active learning within the school. On the other hand, some thought it rather inconvenient that the resources were ‘*locked down in a box*’ separated from other resources they used and thus invisible and needing a bigger effort to make use of. This illustrates how one factor – in this case the activity boxes – can be interpreted as enabling by some and constraining by others.

The core idea of the *ALP* model – *learning* through playful movement – was viewed as making it easier to justify spending time on physical activity, particularly in the outdoors. Thus, by including theoretical learning in playful activities they felt that they were addressing the curriculum with children, which then made it easier to, as they saw it, take time from traditional teaching. For example, one school teacher said:

*It is clear that it is easier to take the time to go outside and be physically active if you can simultaneously learn multiplication tables or the alphabet or whatever you are doing.*

How receptive and predisposed teachers were to the ideas presented on the *ALP* course might be explained, at least in part, by their level of interest in physical activity in particular and active learning approaches in general, as well as their confidence to deliver such approaches and activities. For example, one kindergarten teacher said:

*... we feel confident in these kind of things, activity and chaos. Rather than drawing for me.*

On the other hand, some said that they would rather work towards competency goals through music, the arts or even through more traditional teaching methods.

There were several features of the organizational context that were important in understanding and explaining the extent to which teachers integrated active learning into their practice. Overall, however, they viewed changes in their practice as being



most evident in the period immediately following their participation in the course, changes which, over time, diminished. The most common factor viewed as responsible for such a decline was the inevitable staff turnover in the organization (which tended to tip the balance of staff towards those who had not attended a course). Teachers explained that they found it hard to pass on the knowledge and skills they had learnt through the *ALP* course to new employees. Increasingly, the responsibility for integrating active learning into teaching was seen to rest on the shoulders of just a few employees in each institution. Even when teachers wanted to use active learning, they found it hard *on their own* to initiate such approaches regularly, as one kindergarten teacher explained:

*And more people here at our working place should learn the activities, so that it would not be only the two of us working with it.*

The influx of new courses into the organization, all seemingly of equal if not more importance than active learning, also contributed to the decline over time. Thus, new ideas and priorities (including those relating to physical activity) tended to displace older ones, such that what was once fresh in teachers' minds gradually faded away. Furthermore, teachers emphasized that time was needed for a new concept or model to '*fasten its grip*' in an organization, particularly one experiencing frequent change. One school teacher said, quite simply:

*Yes, we have been on other courses focusing on physical activity .... It is a shorter time since that course, so I use it more than AL.*

Teachers concluded that one *ALP* course was not sufficient either for their own sustained professional development or for the development of the organizational setting into an active learning environment.

The potential to involve all employees, including the administrative staff, in the *ALP* course was, however, universally perceived to be a positive feature in that it enabled them to implement active learning more easily as a part of their everyday work. A high degree of cross-organizational knowledge and awareness of the active learning concept – including among the leaders of the organization – meant there was more acceptance of, and less resistance to key ideas, including the goals of the *ALP*. It also opened up more opportunities to collaborate on both planning and implementing activities.

However, as discussed above, staff turnover made it difficult to sustain this aspect of organizational culture.

#### **4.5 Outcomes related to the ALP course**

At the time of the research, the *SØR-in-M* project had not put into place mechanisms for measuring specific outcomes at the individual (teacher), group (children) or organizational level for the *ALP*. There was, to some degree, a lack of clarity among the teachers in this study about what the specific outcomes of their participation in the *ALP* course might be in the short, medium and longer term. They were uncertain about what, if anything, had changed as a consequence of their participation, or if active learning differed from other teaching styles in respect of children's learning outcomes. Given the multiplicity of factors that influence teachers' daily work, as well as a child's capacity to learn, it is perhaps unsurprising that the informants found it hard to ascribe any changes to specific factors related to their use of the active learning concept itself. As they saw it, any measurable change after a period of time, might as well be ascribed to other activities. One school teacher expressed it thus:

*It is hard to measure, I think. Hard to know, if we had sung songs instead of doing multiplication outside with a ball, what is the best? Hard to say!*

Notwithstanding this point, teachers expressed a variety of views about the likely outcomes arising from their participation in relation to their organization, employees (themselves and their colleagues) and the children. Their perceptions of outcomes are explored in the next few sections particularly with reference to alternative (usually more traditional) ways of teaching, which was how they tended to frame their views.

##### **4.5.1 School-level outcomes**

Notwithstanding the difficulties of attributing outcomes to the specific *ALP* intervention, informants talked about the ways in which they believed the school learning environment had altered since they had introduced active learning approaches. There were a number of different and inter-related dimensions to these changes but all related to the way in which using active learning changed the dynamics not only between teachers and children, but also between teachers as a group. Furthermore, moving beyond the classroom to the outdoors seemed to give rise to a shifting view of

their role, which centred on the equalizing of power relations among teachers as a group. These ideas are illustrated in the following quotation from a school teacher:

*... when we are not in the classroom and we are not 'strict teachers' standing there, maybe you are part of a team .... So it becomes a slightly better learning environment I think.*

The learning environment was also perceived to have been influenced by a shift in the dynamics between children and teachers. Using active learning led to teachers themselves being more directly involved in physical activity and play with the children than when the children engaged in more spontaneous forms of activities on their own initiative as *'[...] it's easier to engage in activity when it is organized by us'* (Kindergarten teacher). When adults took part, it was explained, the activity level and duration among the children increased, with more children participating in physical activity. Teachers viewed children as appreciating their teachers interacting with them in such activities, particularly because it was felt to be on more equal terms.

#### **4.5.2 Teacher-level outcomes**

Teachers talked about the varying receptivity among teachers to active learning, which, they thought gave rise to variation in teacher-level outcomes. However, it was evident that, as a group, they thought they had increased their knowledge and skills relating to how to vary their teaching practice at school or learning activities at kindergarten by drawing on the activities and other ideas they had been introduced to while on the *ALP* course. They also talked about feeling inspired through new ideas that they were eager to apply to their work. At least in the short-term, they came away from the course feeling determined to implement active learning and facilitate the children's use of all their senses in their processes of learning.

Although the teachers in this study were satisfied in many ways with the *ALP* concept, and recognised that their own competence in relation to active learning had increased, they all experienced difficulty in sustaining any shifts in their teaching style. As discussed above, the reality of everyday organizational life meant that it was difficult to keep the ideas to which they had been receptive alive and at the forefront of their minds. To help counter this tendency, they talked about having an annual *ALP* course, for

colleagues new to the school as well as those who had been on the course in the past.

One school teacher said:

*I certainly think we should have had more than one course, it's not enough to 'plant' something properly; somehow it must get a good grip both in us and in our school, and then you have to work on it over a period of time. We are introduced to so many things – one day there is this course, the next day that, so we just move on to 'the newest' all the time ... it is like that with AL too.*

In other words, if active learning was to become the predominant teaching approach in the school a mechanism for re-familiarization and reinforcement over time was needed, so that it could stand out in the crowd of ideas that all competed for teachers' attention in school and kindergarten.

#### **4.5.3 Child-level outcomes**

Observational data suggested that children of all ages enjoyed being active in the learning process, and appreciated the variety of ways of learning that they experienced. Overall, group involvement tended to be high, with few if any children excluded from or on the margins of teaching and learning activities. Overall, teachers related their participation on the course and their use of the *ALP* ideas, activities and materials as having given rise to an increase in children's physical activity levels whilst at school or kindergarten.

There were, however, some differences among kindergarten and primary school in how teachers perceived outcomes. Among kindergarten teachers, active learning approaches were seen to have potential to contribute to a range of developmental outcomes. In terms of motor and physical development, being physically active was viewed as an end in itself regardless of any broader learning goals associated with physical movement. In particular, those working in kindergarten commented on how the *ALP* course had specifically provided them with many ideas on how to focus on motor development. For these teachers, motor development was also seen as related to the development of children's general confidence and capacity to learn other things and in other ways, as illustrated in the following quotation:

*... my opinion is that kids who are active and who are confident in themselves and in their bodies, and who master these things, are more likely to learn in other ways too, such as while sedentary at the desk.*

*Because they have learned so much through their entire body, they are confident in themselves: they become confident through using their bodies. If we manage to get them to be confident in using their bodies, I think they accept learning in several ways. (Kindergarten teacher)*

Other learning outcomes for children while at kindergarten related to learning mathematical concepts, colours, and communication. In particular, school teachers talked about the ways in which active learning might engage those children who struggled to learn through more traditional teaching approaches:

*It might capture the attention of someone who did not engage with numbers if he was sitting quietly and looking in a book.*

Being a part of organized activities was also viewed as being important in the development of social and emotional competence – learning social codes such as waiting for their turn, cooperating, receiving oral messages – especially important in seeking to prepare children to start school. In particular, active learning was viewed as helping children learn how to deal with victory and defeat in games, how to relate to rules and guidelines and how to respect each other. One kindergarten teacher said:

*... to receive collective messages, follow the rules, work in a group, there is plenty of such learning. I have to say that I think of that as learning outcomes also. To wait for turn, stand in line, follow a particular order and respect this, those are all important lessons to learn.*

However, teachers found it hard to identify specific outcomes for children from active learning approaches compared to other teaching methods. In particular, they emphasized that active learning could not replace other learning styles, but rather only be an additional way of creating variation in their teaching practices.

#### **4.6 Applying a ‘Theory of Change’ model to the ALP course**

In thinking about how problems might be addressed through an intervention, a theory of change model can be useful because it provides a process for clarifying what outcomes might reasonably be achieved given specific inputs from the intervention and within particular timescales. This is often referred to as the programme logic (Weiss, 1995, which provides an explanation for *how* change happens. The findings from this research have been analysed in order to bring to the surface the theory of change that seemed to underpin the ALP course, which is shown in Figure 4.6.1. It is presented as a tool for further planning and development of the project and is discussed further in Chapter 5.

Although theory of change approaches tend to be somewhat linear and descriptive (White, 2009), analysing the inputs and outputs alongside the many contextual constraints (organizational, local, regional, national) can prove fruitful in understanding why outcomes might not be reached as anticipated.



## Chapter 5

### Discussion

#### 5.1 The contribution of this study

This small-scale evaluation set out to develop an understanding of the *ALP* course from the perspectives of those who had been involved in its delivery, in particular, the teachers who participated in the course. A theory of change approach was used to help clarify the goals of the *ALP* course (as an intervention) and how these might be reached, through the development of a simplified programme logic (see Figure 4.6.1). However, in common with all research, including evaluation research, the findings from this study cannot provide a ‘definitive answer’ about the impact of the *ALP* course, either with regard to changing teaching styles or with regard to any impact of teachers’ use of active learning approaches on children or the wider school environment in the short, medium or longer term. Rather, the evaluation has a potentially important formative role in that it has provided some insight into the dynamics and consequences of the *ALP* course. Thus, the study findings contribute to the emerging evidence base on active learning and can be used to inform decision-making relating to the future development of the *ALP* course. However, the study had a number of limitations, which are important to note.

#### 5.2 Limitations of the study

This evaluation was small-scale and exploratory, necessary because of the limited resources available for the research. Thus, the findings reflect the views of a self-selected number of teachers, whose leaders opted into the study. That said, however, there was nothing to suggest that the sample was unusual in any respect; the teachers were all able to act as key informants having had experience of the *ALP* course as well as implementing *ALP* ideas into their daily teaching. Furthermore, in keeping with a rapid evaluation based on a qualitative methodology, the findings are presented as illustrative (not representative of some wider group) and contribute insights and understandings based on the perspectives of those directly involved in the phenomenon under study.



The full range of settings in which the *ALP* course had been delivered was not, however, reflected in the study sample. A point particularly worthy of note is the absence of any secondary school teachers in the sample. Given the enabling and constraining factors relating to the school context that this study revealed, future research should seek to recruit such teachers in order to understand more fully why active learning seems to be less likely to take seed in the secondary school context. The background and experience of secondary school teachers is significantly different from primary school teachers in general and kindergarten teachers in particular. Offering head teachers some benefit from future research might go some way towards increasing the likelihood of their participation.

### **5.3 Overall assessment of the impact of the *ALP* course**

In working towards improving public health, a specific goal of the *SØR-in-M* project was to increase the proportion of physically active people in the population. In contributing to this goal, the *ALP* course specifically aims to impart knowledge, develop skills and inspire creativity among its course participants, encouraging them to apply what they have learnt to their everyday teaching practice. The goal is thus for teachers to develop their teaching style in ways that create active learning arenas for children. The longer term vision is to develop ‘active learning’ kindergartens, schools, and other related arenas, which are viewed as important settings for communicating the importance of daily physical activity (En region i bevegelse, 2014).

With respect to these goals, and on the basis of this evaluation, the *ALP*, as a concept and course, has had some influence on developing teachers’ knowledge and skills relating to active learning, to the extent that many were sufficiently confident to apply these to their practice. The reality of everyday life in schools, however, meant that no matter how receptive teachers were to these ideas, sustaining changes became more difficult over time. This meant that the broader goal of developing active *settings* (kindergartens, schools and so on) in which the predominant approach to learning was *active* learning, had not been realised and was unlikely to be in the future without some fundamental changes to teachers’ everyday experience of working in schools. Thus, the paradigmatic shift in teaching and learning culture within each school had not taken place as envisaged. This is unsurprising given that research elsewhere has shown the

significance of contextual constraints for teachers in sustaining changes to practice (Capel, 2005; Stroot & Ko, 2006).

Teachers' receptivity to active learning ideas varied, with some teachers less inspired than others to incorporate the ideas to which they had been introduced. This finding is also consistent with research that has revealed the difficulty of shifting teachers' deeply held values and beliefs (Curtner-Smith & Meek, 2000). It is thus likely that those with a strong attachment to physical activity will tend to embrace active learning ideas and embed them into their practice. Nonetheless, CPD may be more likely to be effective if it works with and develops ideas to which teachers have been introduced during their initial teacher education programmes. However, as far as CPD is concerned, there may be some grounds for optimism. Keay's (2007) research suggests that teachers' receptivity to new ideas is enhanced if they can be shown to have some immediate practical benefits. The *ALP* course, for example, provided teachers with concrete practical examples of how to integrate active learning into teaching practice, supported by appropriate resources. Furthermore, having alternative ideas to integrate into practice was generally viewed favourably by teachers.

If working conditions change – for example, there are fewer organizational constraints – then teaching styles are more likely to change. As Green argues, 'constraints upon practice matter more than theory in determining what teachers do and how they do it' (2008, p. 214). Notwithstanding national level constraints, examining what room for manoeuvre there is at an organizational, municipality and county level may well be the best way of trying to facilitate the penetration of active learning across educational settings. If a paradigmatic shift towards 'active learning schools' is desired, then teaching styles based on active learning ideas, principles and methods need to be established as the norm, becoming embedded in the culture of the school. Thus, the management of organizational change is more likely to be successful if it is seen in multifactorial terms. In the case of embedding active learning, this means looking beyond teachers.

## **5.4 Towards active teaching styles**

To date, the effectiveness of orthodox active learning approaches to achieve specific educational goals is generally viewed as compelling. There is, however, far less research on the effectiveness of the broader conceptualization of active learning studied in this evaluation, that is to say, one that emphasizes an active mind *and* a physically active body. Notwithstanding this issue, a key challenge relates to how to prepare, encourage and support teachers in using teaching styles that have the potential to stimulate active learning in their everyday practice. The findings from this study suggest that the *ALP* course, in various ways and to varying degrees, influenced the hearts and minds (Fullan, 2007) of course participants. Thus, the teachers in this study tended to attach some value to the *ALP* course and the ideas it promoted, being receptive to them in theory and in practice. Generally they viewed the course as helping them develop variation in their teaching style, in a direction that created more opportunities for children to be physically active. There was, however, more scepticism about the impact of varying teaching styles through the inclusion of active learning ideas particularly in relation to enhancing the learning process in relation to key competency goals.

If the *ALP* course is to continue as a vehicle for the continuing professional development of teachers with respect to enhancing their use of active learning styles, the findings from this study provide a basis for thinking about how it might be strengthened in the future.

### **5.4.1 Funding, designing and delivering the *ALP* course**

The theory of change model presented in Figure 4.6.1 can be used as a design and planning tool to clarify outcomes and timescales within which it is reasonable to expect outcomes to occur. More fundamentally however, it can assist in thinking through the underpinning theory of change: in other words, what can realistically be expected to change given the level of inputs (including funding) and the form of outputs in the *ALP* course? In other words, having identified the desired outcomes (at teacher, school and child levels), what is the best possible way of reaching them given the level of investment in the course? What has hitherto been referred to as the programme logic, can help in this regard.

The experiential aspect of the *ALP* course was widely viewed as important by teachers in the development of their knowledge, skills and confidence to integrate active learning

into their teaching. However, if active learning is to permeate teaching across all curriculum subjects and age groups, then the *ALP* course needs to provide experiences that reflect this aim. Including course facilitators with expertise in curriculum subjects beyond physical activity and sport may help in this regard. If the goal is not only to increase children's physical activity but also improve their engagement and achievement in learning, then a greater emphasis on the pedagogical aspects of using physical activity in active learning would also be beneficial. In this regard, teachers had a tendency to interpret active learning in ways that emphasized physical activity, rather than wider *learning* goals that might be associated with it. The inclination of teachers to talk about 'activities' rather than processes of learning, and of sometimes seeing active learning activities as separate from, and taking valuable time away from learning, reflects these issues.

Thus, widening the team of course facilitators to include those with relevant qualifications and experience in a range of academic disciplines, including those with pedagogical expertise, may be beneficial. It is likely that this would necessitate the development of a course of longer duration. In this regard, it might be beneficial to think in terms of an *ALP* course structure that allowed learning to be followed by a period during which ideas were applied in teachers' every day settings, following by a second period of learning and reflection. Research has also shown that follow-up, in the form of planned support, for example, also increases the extent to which CPD can be transformative (Harris, Cale' & Musson, 2012). The opportunity to base the design of the *ALP* course on the best available evidence is also likely to improve its effectiveness.

The theory of change model can also be used to develop systems for monitoring and evaluation of the *ALP* course in that by clearly identifying intended outcomes, thought can be given to what, how and when to measure them. Given the scepticism that was evident among some teachers about the value of active learning in bringing about outcomes among children as a group, establishing a programme of monitoring and evaluation has the potential to generate evidence that can be fed back to course participants and schools. If beneficial outcomes can be evidenced there is greater potential for the *ALP* course to be embraced particularly among decision makers, including potential funders of the course. However, in designing monitoring and evaluation systems it will be important to be clear on what outcomes should be

measured and when, in order to avoid setting up a project to fail by being unrealistic about what can be achieved for the relative amount of financial investment. This is particularly pertinent to the *ALP* course, given its current duration and structure.

#### **5.4.2 Creating a supportive organizational context**

The *ALP* course is based on the premise that the teaching profession is central to achieving health-related, alongside broader, educational goals. However, if transformative change is to occur then thinking beyond teachers is a necessary condition. A key finding of this study was the extent to which the organizational context constrained teachers' use of active learning ideas and activities. Three key issues limited the extent to which a 'whole school' paradigm shift occurred in teaching and learning culture as envisaged by the *SØR-in-M* project: first, staff turnover in the organization; second, the absence of follow-up from the *ALP* course facilitators (or other project staff); and, third, the plethora of initiatives that swamped teachers on a regular basis, including additional courses on physical activity. Although staff turnover is a fact of life in educational institutions, maintaining a high proportion of *ALP*-trained teachers in a kindergarten or school would help in maintaining the profile of active learning. Thus, having more frequent access to *ALP* courses (including *ALP* courses of a longer duration as discussed above) would be beneficial, particularly if this was accompanied by ongoing support from the *ALP* facilitators. This issue has, of course, funding implications. However, if a critical mass of *ALP*-educated teachers could be maintained then there is more likelihood that the concept will become embedded in the life of the school, as other policies do over time. Support from the leadership in facilitating access to CPD opportunities for teachers is also important – symbolically and pragmatically – as it emphasizes the value attached to the initiative at an organizational level.

If active learning is valued by the leadership, then strategically prioritising specific initiatives to limit the number and type to which teachers are required to respond might be considered. This might particularly be helpful with regard to initiatives that relate to physical activity, an arena that has seen a plethora of school-based initiatives in recent years. The number, range and diversity of different physical activity initiatives has the potential to confuse, dilute and even contradict the aims and objectives of active learning as promoted through the *ALP* course. From a strategic perspective, the

leadership might consider prioritising active learning as one among a limited number of core objectives in any one year. This might be facilitated through working in partnership with the municipality and county.

## **5.5 Conclusion**

Given the current concern of policy makers with children's health and development, including their educational development, it is likely that interest in active learning will remain. Therefore, it is likely that interest in the *ALP* course will continue. On the basis of the findings from this evaluation a number of points for action have been identified that could enhance its influence. However, significantly, these points have implications for a variety of stakeholders, not least of which is those who fund the *ALP* course, alongside those with leadership responsibilities in educational institutions.

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## **Appendix 1**

### **Focus group schedule for teachers**

### **Focus group schedule for teachers**

*Remind them re: confidentiality and anonymity. Also remind them that there are no right and wrong answers. Here to find out about the project, what they do, how they view the value of the project, and so on. Audio recording: check and record consent*

#### **Background information about the participant**

- Age, sex and educational background of participant, role at school/kindergarten

#### **Information about the ALP**

1. How did you get to know about the ALP? From whom? How long involved? Did you know anything about the course before you went on it?
2. Can you tell me what your views are about the course? Strengths? Weaknesses? Introduced you to new knowledge, skills? Something you felt you needed?
3. What do you think about the course materials? Suggestions for changes? Do you use them regularly? Why/why not? How?
4. Have you benefitted from what you've learned? Why/why not? How?

#### **Integration of ideas into practice?**

5. Can you see anything different about how you teach since the course? If so, how? Knowledge? Skills? Teaching styles/strategies/practices? Why? How?/What influences how you use what you have learnt? Enabling/constraining factors?
6. How, when and where do you use active learning ideas? Age groups/subjects/how decide?
7. What are your views on how children respond to active learning? Changes: physical activity/learning/engagement/outcomes?

#### **Other changes?**

8. Have there been any broader changes at school?

#### **Comparison with traditional approaches**

9. How would you compare traditional teaching/other educational methods with active learning?

#### **Moving forward**

10. Is there anything in relation to the ALP you wish were different? How? Why?
11. Any other comments regarding ALP or active learning more broadly?

**Thank You!**

## **Appendix 2**

### **Focus group schedule for course facilitators**

### **Focus group schedule for Active learning facilitators**

*Remind them re: confidentiality and anonymity. Also remind them that there are no right and wrong answers. Here to find out about the project, what they do, how they view the value of the project, and so on.*

*Audio recording: check and record consent*

#### **Background information about the participant**

- Age, sex and educational background of participant
  - How long involved in the project?
1. Can we start by you telling me something about how you came to be involved with the project?
  2. Can you explain to me what your role is and what it entails you doing? (role: general)
    - a. How do you think your background helps you in your role?
  3. How do you run a typical session? (role: specific – strategies and practices used)
    - a. Any follow-up?
  4. Taking a typical session as an example, can you tell me what your goals are? (Tease out any differences between kindergarten, primary and secondary)
  5. What are your thoughts about how effective the project is?
  6. Do you have any ideas about how the project could be improved?
  7. For you, what does ‘active learning’ mean?
  8. ... and what do you think the goals/aims of the ‘active learning’ project are?

Probes to explore questions in more details:

- a. Can you give me an example of that?
- b. Could you say a little bit more about that?
- c. Can you explain how that happened?

## **Appendix 3**

### **Observation schedule**

### Observation schedule

A number of different activities in different settings were selected for observation

Describe the activity	<ul style="list-style-type: none"> <li>• Date, time and setting (eg inside/outside) of activity</li> <li>• Who is in charge?</li> <li>• Who else is involved?</li> <li>• How many children are present?</li> <li>• How does the session start?</li> <li>• What takes place (timings of key actions; how much time is the teacher talking or demonstrating; how much time are the children active)</li> <li>• What materials are used?</li> <li>• What teaching style(s) is used (problem-based; collaborative group-work; etc)</li> <li>• How does this activity relate to the R-in-M objectives?</li> <li>• How does the session close?</li> </ul>
Assessment of children's engagement and enjoyment	
Any other comments	

## **Appendix 4**

### **Participant information sheet for employees including head teacher/leader**

**Elverum, Date**

Dear school leader/ kindergarten leader/ employee

Related to the Active Learning project that you and your workplace have participated in, it will be conducted an evaluation study. As part of this evaluation employees at schools and kindergartens that have participated on courses and are users of the course materials will be interviewed about their experiences with the project, and possibly be observed conducting activities inspired by Active Learning.

The purpose of doing this data generation is to find out if the intentions of the project are addressed, to identify the outcome of the concept, to find out if the project participants are satisfied with the product, and to describe how the project are implemented in the schools and kindergartens – all this with an overall aim to make Active Learning better!

The data will be generated through interviews and/or focus groups with stakeholders that work with Active Learning activities on a regular basis, and through observing such activities.

The data will, if desired, be made available for all involved parties, in form of a written report. Participants will be anonymized so that no schools, kindergartens or persons will be possible to recognize through their statements or through observations. No single data will be possible to trace back to a person or a certain school or kindergarten.

To be interviewed is voluntary, and the participants can at any time in this process chose to withdraw from the evaluation without giving any reason for this choice.

The time of an interview is estimated to be around an hours. The interviews will be recorded to ensure that the analysis will be of good quality. Records will be deleted as soon as the report is done. Observation of activities will take place on your premises, and will not affect your work.

We hope you can contribute to make Active Learning even better – your opinions count!



*I forbindelse med Aktiv Læring-prosjektet som du og din arbeidsplass har deltatt i, skal det nå gjennomføres en evaluering. Som en del av denne evalueringen vil ansatte ved skoler og barnehager som har deltatt i prosjektet som deltakere på kurs og brukere av prosjektmateriell intervjues om sine erfaringer med prosjektet, og eventuelt observeres i aktivitet inspirert av Aktiv Læring.*

*Formålet med å gjøre disse datainnsamlingene er å finne ut om intensjonene med prosjektet ivaretas, å identifisere utbyttet skoler og barnehager har av Aktiv Læring-konseptet, å finne ut om prosjektdeltakerne er tilfreds med produktet og å beskrive hvordan prosjektet implementeres i deres skole/barnehage – alt med et overordnet mål om å gjøre Aktiv Læring bedre!*

*Dataene vil samles inn gjennom intervjuer av skoleledere/barnehageledere, og ansatte som har deltatt på kurs og som eventuelt jobber med Aktiv Læring-aktiviteter regelmessig, og gjennom observasjoner av gjennomføring av Aktiv Læring-aktiviteter.*

*Dataene vil om ønskelig gjøres tilgjengelig for alle involverte parter gjennom en skriftlig rapport. Deltakere vil anonymiseres slik at ingen skoler, barnehager eller personer vil kunne gjenkjennes gjennom utsagn eller observasjoner. Ingen enkeltopplysninger vil dermed kunne spores tilbake til enkeltpersoner eller en bestemt barnehage eller skole.*

*Å la seg intervjuer er frivillig, og man kan når som helst i prosessen velge å trekke seg uten å begrunne sin avgjørelse.*

*Tiden for et intervju anslås til maks en time. Intervjuene vil tas opp på bånd for å lette og kvalitetssikre arbeidet med å analysere dataene i etterkant. Opptak vil slettes så fort arbeidet er ferdigstilt. Observasjon av aktivitet vil foregå på deres premisser, og uten å være inngripende i skoledagen/barnehagedagen.*

*Vi håper dere kan bidra til å gjøre Aktiv Læring enda bedre – deres innspill er viktige!*

Best Regards

Med vennlig hilsen

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*Miranda Thurston*

Professor in Public Health

Høgskolen i Hedmark

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*Ida Storberget*

Research assistant

Høgskolen i Hedmark

## **Appendix 5**

### **Consent form**

## Employees in school/kindergarten

### *Samtykkeerklæring – ansatte i skole/barnehage*

I have received both written and oral information about the research of the Active Learning project that my school/kindergarten has participated in, and the purpose of the interviews and the observation that will be conducted. I accept that my points of view and my reflections around this project, and data generated through the observations can be used in an evaluation report. I am aware that my participation is voluntary, and that I have the right to withdraw from the project at any time, without justifying my choice.

*Jeg har fått skriftlig og muntlig informasjon om evalueringen av Aktiv Læring prosjektet som skolen/barnehagen og jeg har deltatt i, og hensikten med intervjuene og eventuelt observasjonen som vil ble gjennomført. Jeg godtar at mine synspunkter og refleksjoner rundt prosjektet, og data innhentet gjennom observasjon kan brukes i en evalueringsrapport. Jeg er innforstått med at deltakelsen er frivillig, og at jeg når som helst kan trekke meg fra prosjektet uten å begrunne hvorfor.*

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Place/Date *Sted/dato*

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Signature *Underskrift*

### **School leader/kindergarten leader**

#### ***Samtykkeerklæring – skoleleder/barnehageleder***

I and the employees have received both written and oral information about the research on the Active Learning project that the school/kindergarten has participated in, and the purpose of the interviews and the observation that will be conducted. I accept that points of view and reflections around this project, and data generated through the observations can be used in an evaluation report. I am aware that participation is voluntary, and that both I and the employees have the right to withdraw from the project at any time, without justifying our choice.

*Jeg og de ansatte har fått skriftlig og muntlig informasjon om evalueringen av Aktiv Læring prosjektet, og hensikten med intervjuene og observasjonen som vil bli gjennomført. Jeg godtar at synspunkter og refleksjoner rundt prosjektet, og data innhentet gjennom observasjon ved min skole/barnehage kan brukes i en evalueringsrapport. Jeg er innforstått med at deltakelsen er frivillig, og at jeg og de ansatte når som helst kan trekke oss fra prosjektet uten å begrunne hvorfor.*

---

Place/Date *Sted/dato*

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Signature *Underskrift*