Mapping and Reviewing Concepts of Children’s and Young Peoples’ Competence, Participation and Competence Development

Anders Kruse Ljungdalh

Lillehammer University College 2012
# Table of Contents

Foreword .......................................................................................................................... 4
Introduction ....................................................................................................................... 5
The literature search ......................................................................................................... 6
  Variables in the categorisation of the literature .............................................................. 13
    Frame variables ........................................................................................................... 13
    Variables concerning concepts of competence ........................................................... 14
    Variables concerning concepts of participation ....................................................... 15
    Variables concerning the connection between participation and competence .......... 16
    Variables concerning age range ............................................................................... 17
    Variables concerning education ............................................................................... 17
  Subject, discipline or field variables ............................................................................. 18
Statistical mapping of concepts of participation, competence and competence development and the fields or disciplines in which these various concepts appear ......................................................... 20
  Historical changes ........................................................................................................ 20
Cluster analysis: ............................................................................................................... 22
  Cluster one: ‘Ability determines participation’, health, non-education and disability ......... 23
  Cluster two: Education, participation leads to acquisition of skills ............................... 24
  Cluster three: Contextual concepts of competence and participation, reciprocally connected .... 25
  Characteristics of the three clusters .......................................................................... 25
A mapping of correlations between the variables ............................................................ 26
  Various associations between aspects of competence .................................................. 27
  Various aspects of participation correlated ..................................................................... 29
  Aspects of competence and participation correlated .................................................... 30
  Various causal connections between competence and participation ............................. 31
  Age groups ................................................................................................................... 35
  Concepts of competence correlated with education and subjects, disciplines or research areas .... 38
Summary of the statistical analyses ................................................................................. 46
In-depth conceptual analysis of children’s and young people’s participation and competence development ................................................................................................................................. 49
  Focus of the qualitative, in-depth analysis ................................................................... 49
  1. How are competence and participation connected? Participatory competence ........ 54
  2. Disability and participation difficulties ................................................................... 55
3. Participation leads to skill or competence development.................................................. 59
   a) Increasing degrees, qualities or levels of participation.................................................. 59
   b) ‘Macro’ perspectives on the link between participation and competence ...................... 61
   c) Participating in after-school activities: ........................................................................... 62
   d) Participation in educational programmes: developing financial capability .................. 63
4. Aspects of competence ........................................................................................................... 64
   a) internal/external and social/personal aspects of perceived competences .................... 64
   b) Educating competent civic agents .................................................................................. 66
5. Dynamic and contextual relations between competence and participation...................... 68
   a) Development of new forms of participation .................................................................... 68
   b) Contextual competence and multiple contexts .............................................................. 70
   c) Developing life skills: A dynamic relation between competence and participation ........ 73
6. Capability and the evaluation of children’s and young peoples’ participation ..................... 76
   a) Universal or contingent measures of children’s capabilities and wellbeing ................. 76
   b) Measuring participation in childhood disability ............................................................ 78
Summary and assessment of qualitative findings ..................................................................... 79
   Ability to participate ........................................................................................................... 79
   Skill or competence development through participation .................................................... 80
   Complex, contextual, reciprocal relation between participation and competence development ...... 81
Conclusion, feedback and further challenges ............................................................................. 83
   Feeding back on the BUK Research Programme ............................................................... 83
   Conclusion and further challenges ...................................................................................... 89
Literature.................................................................................................................................. 95
Appendix 1 – Results of literature searches on title and abstract ............................................. 99
Foreword

This is a report from the umbrella project *Child and Youth Participation and Competence Development: Consolidating a Research Field through New Synthesis of Empirical Outcomes and Theoretical Frameworks* at the Research Centre for Child and Youth Competence Development, Lillehammer University College (LUC). The study reported here is one of several projects, aiming at a systematic development of the theoretical framework for the Centre’s multidisciplinary research- and PhD-program *Children’s and young people’s participation and competence development*.

The study is conducted in collaboration with researchers at the *Research Program for Environmental and Health Education*, Department of Education at the Aarhus University (DPU).

As a part of the umbrella project the reported study will not only be an important contribution to the ongoing development of the theoretical frameworks for the research- and PhD-program at LUC. The results could also be used as a contribution in the development of the theoretical framework for the Research Program for Environmental and Health Education at DPU, since a key concept in this program is “action competence”.

In order to optimize the potential synergy effects of the collaboration of the two institutions, the organization of the project also involve researchers from the two collaborating institutions who are involved in research relevant for the project. The project is thus organized in the following way:

**Project leader:**
Professor Pär Nygren, LUC

**Researcher:**
Postdoc Anders Kruse Ljungdalh, DPU

**Senior supervisor for the researcher in the post doc position:**
Professor Venka Simovska, DPU

**Project reference group:**
- Associate professor Monica Carlsson, DPU
- Professor Halvor Fauske, LUC
- Professor Ole Dreier, LUC

The post doc-position and all travel expenses are funded by the Research Centre at LUC, while the workload of all involved researchers is funded through part time of their positions at the two institutions.

Lillehammer and Copenhagen November 2012

Pär Nygren, Anders Kruse Ljungdalh, Venka Simovska, Monica Carlsson, Halvor Fauske and Ole Dreier
**Introduction**

The following literature review is an attempt to identify and analyse concepts of children’s and young people’s competence, participation, and competence development. The intention is to identify new research areas and concepts that may contribute to the overall project ‘Child and Youth Participation and Competence Development: Consolidating a Research Field through New Synthesis of Empirical Outcomes and Theoretical Frameworks’ at the Research Centre for Child and Youth Competence Development (BUK-senteret), Lillehammer University College (LUC). The purpose of the review is to map out the various research areas or disciplines that apply these three concepts, to analyse the various uses and definitions of the concepts of competence, participation and competence development, to suggest a strategy for future research within this area, and to discuss the findings in relation to the conceptual framework of the BUK-senter. The project plan states the following:

However, difficulties in operationalizing these concepts, and the varieties in the use of the concepts raise a number of questions, such as: what is the content, or the main core, of the concept of children’s participation, competences and competence development? Do different conceptualizations represent different understandings of children’s participation, competences, or are they just new words? How is the relation between participation and competence development conceived? E.g.: How is the effect of children’s and young people’s participation in different social practices aimed at competence development conceptualized? How is the relation between competences and the social context in which the competences are executed conceived? Are children’s and young people’s competences conceptualized as a purely cognitive state of mind, or are they defined in relation to social and cultural contexts and practices? (p. 1)

Therefore, the aim of the project and the report is to contribute to a more stringent use of the concepts of children’s and young people’s participation, competences and their development of these competences within both research and practice, hereunder in policymaking, planning, implementing and evaluating practices, which target the development of children’s and young people’s competences and competence development related to their participation in and across social practices.

The core of the matter is therefore to investigate the meaning of the concepts competence, participation and competence development. It is not the terms or the words competence, participation and competence development that are interesting, but rather the conceptual core of these words. This hunt for a conceptual core is pursued by delineating the various disciplines and research fields that occur in the abstracts and titles identified through a literature search. Moreover, the purpose is to identify and describe different terminologies concerning the central concepts (competence and participation), as well as the use of, and the connections between these different terminologies. The project plan states research questions in connection with the above said:

1. How are the concepts of children’s and young people’s participation, competences and competence development conceptualised theoretically, operationalized and methodologically implemented and assessed in research and policy documents addressing children’s participation in different institutional and non-institutional practices?

2. How can the results of the analysis of the scientific, political and professional texts contribute to the development of the conceptualisation of children’s and young people’s participation, competences and
competence development, and the interrelations between these concepts, in relation to the way these concepts are defined and used in the theoretical framework in the research- and PhD programme at the research centre at LUC?

In this report, our focus is on the scientific texts, while the political and professional texts will be addressed in another report.

The literature search
The aim of the literature review of children’s and young people’s competence, competence development and participation is to investigate how these concepts are used within different disciplines and research fields, and to relate the results of the analysis to the concepts used in the LUC research programme. The investigation focuses primarily on sociological, psychological and education research, and both theoretical as well as empirical studies are included. Medical databases are thereby not included (but this does not mean that medical articles are excluded). A concept may appear in many different terminological disguises, and on different terms. It may be explicitly defined, or it may be defined in use, i.e. the definition may be implicit to the way the concept is used in for example an empirical or theoretical study. An initial search was conducted in the databases Sociological abstracts, ERIC and PsychInfo (representing the disciplines sociology, education and psychology, respectively). The search was carried out in abstracts only, limited to the period 2000-2012, and in English, peer-reviewed literature. The following Search terms were applied:

Child* OR infant OR "young people" OR youth OR adolescen*
AND
Competenc* OR capabilit* OR abilit* OR skill*
AND
Participation OR involvement OR "social inclusion" OR marginalisation OR "social integration”

The result yielded 3419 hits. The list below (fig. 1) contains the various subjects, as well as an indication of the number of hits for each subject, represented when conducting a search on and with the above terms.

Fig. 1 – A table of all the various subjects, and the number of hits, included in the main search on children and young people, participation and competence in the meta-database ProQuest (including the databases Sociological Abstracts, PsychInfo, and ERIC).
There is a gradual increase (fig. 2) in the quantity of publications from 2000 to 2011 (2012 is not included here, since the publications from this year only include the first few months). This increase should be considered in light of an overall, underlying gradual increase in scientific publications (which in the same databases has doubled in the same period from 144324 hits to 295430). There is, then an overall increase from 2000-2011 from around a hundred articles concerning children, young people, competence and participation, to four hundred and fifty, i.e. an increase of 450% from 2000-2011. Controlling for the overall increase of publications in the same databases, and in the same period, the actual increase concerning the topic ‘children, young people, participation and competence’ is approximately 225%. Publications within this area have more than doubled since 2000. If one wants to understand why there appears to be a big leap in 2004, 2007, and 2010, one must of course seek a possible explanation at least two or three years before, because this is probably when the research was conducted and the first versions of the papers that were finally published were drafted, given the delay in all publication activities.

Fig. 2 – A table indicating the number of publications on children and young people, competence and participation for each year from 2000 to 2011 in ProQuest (Sociological Abstracts, PsychInfo and ERIC).

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publ.</td>
<td>106</td>
<td>95</td>
<td>122</td>
<td>146</td>
<td>264</td>
<td>266</td>
<td>279</td>
<td>333</td>
<td>361</td>
<td>374</td>
<td>440</td>
<td>453</td>
</tr>
</tbody>
</table>

Two different pilot searches were conducted to develop a preliminary understanding of the research fields covering the topic of children and young people’s competence, participation and competence development. In the first search the same terms as described above were applied, but searching only in titles and not in abstracts (result of title search is included in appendix 1). In the other, the terms “competenc* development”, “skill* development” and “development of ability” were applied, to focus...
more directly on the most central concept, i.e. competence development (which presumably automatically implies ‘competence’ and at least some form of ‘participation’). The purpose was to conduct a very narrow search, and to read the abstracts in order to develop an initial recognition of the various research fields. The two searches yielded 46 and 52 hits respectively. Based on an initial reading of these 98 abstracts I constructed a set of variables supposed to cover the various disciplines and empirical fields that appeared within this research area. We can call these variables ‘subject variables’ or ‘field variables’. Intuitively the articles seemed to cover a variety of subjects: physical education or sport, disability or impairment, children’s social welfare, citizenship education, family issues (including parental involvement and fathers’ and mothers’ different roles in child-rearing), psychological studies of child or adolescent development, professionals’ or caretakers’ competences, education (including academic achievement, school, high school, teaching methods, curriculum studies, and other informal educational institutions). Moreover, a variable concerning leisure, after-school-activities, extra-curricular programs, or play was constructed to capture the wide variety of studies that focus on children’s participation and competences in non-formal educational contexts. Moreover, a substantial amount of texts seemed to focus on children’s physical, motor or sensory skills in connection with learning or the acquisition of certain skills. A variable capturing these mostly psychological developmental studies was constructed. Moreover, the variable ‘health’ indicates that the article concerns health promotion, physiotherapy, paediatrics, health professionals’ competences to deal with children, or medical studies more broadly. A variable called IT and Technology was supposed to capture children and young people’s new forms of participation and competences concerning IT, digital media and other new technologies (See below for a definition of the subject variables).

The reason for this categorisation of the articles in the above mentioned ‘fields’, ‘disciplines’ or ‘subjects’ is that we might expect these different fields or disciplines to apply different definitions of the concepts competence, participation and competence development. It might be expected that each field of practice has a specific way of reasoning about and conceptualising children’s participation and competence, and that as a consequence there are different definitions of these concepts (either explicitly or in use) within each discipline or ‘field’. We can expect certain disciplines or fields of practice to coin different conceptualisations. By discipline we mean both research and practice, i.e. the medical ‘discipline’ or ‘field’ comprises both medical research, health professional expertise, treatment, institutional structures practices, such as hospitals etc.). Uffe Juul Jensen has provided an account of, and demonstrated this practical reasoning in his *Sygdomsbegreber i praksis* (1983). Each field, discipline or practice demonstrates a practical reasoning, i.e. the definitions are not necessarily defined explicitly within different practice areas, but are rather ‘practiced’, so to speak, and they appear either in the different lines of argumentation (if arguments are made explicit), or they appear in action, in the various makings and doings that characterise the field or discipline in question. An argument, in this respect, is also understood as a practice. According to J. L. Austin utterances are not necessarily merely descriptive, but can also be performances. The idea of a ‘performative utterance’ allows an understanding of an argument that does not only focus on the conceptual content, but also on the argument as an action, cf. the title of Austins famous talk and later publication *How to do things with words* (Austin 1962). One might therefore expect different research fields, different practices, different disciplines to coin various conceptual definitions (implicitly or explicitly) concerning children and young people’s competence and participation. Some fields’ conceptualisations presumably coincide, and some differ.
It might therefore be argued that the existence of a conceptual core is a figment of the imagination, because concepts are constantly moulded and shaped in practice. Concepts, from this perspective, are therefore strategic results of struggles of identity and meaning-making, and the meaning of concepts is therefore constantly produced and shaped by power structures and contestation; conflicts or discussions to which this review contributes. Holding on to the very idea of a conceptual core, and subsequent ideas of abstract concepts, therefore risks neglecting that concepts are always immersed in contexts of practice, including the conceptual attempts to stamp out the abstract meaning of these situated concepts.

According to such pragmatism these fields of practice are seen as independent variables, whereas the variables that express different definitions of competence and participation are understood as depending on the fields from which they emerge. This is of course a presumption. In fact, it is difficult to say with certainty if a specific definition of the concept ‘participation’ is a result of the discipline that uses the concept in this specific way, pupils demonstrating different patterns of participation, or whether the research fields and disciplines are a result of a specific way of thinking, i.e. for example medical practices being a result of a specific way of conceptualising diseases. Given the premise of pragmatism declared above, we ought to attribute to the field variables a status as independent variables, but for now we will treat all variables as having an equal status. For now we only aim for a mapping of the possible associations between the variables and do not attribute a fundamental ontological privileged status to one set of variables over another.

However, it is important to reflect on the status of these variables, because what do they represent? A concept of competence as a contextual phenomenon, and a concept of participation that entails influence on decision-making processes, can logically be seen as associated with research fields that imply a situated learning, and political education. Is it therefore a pleonasm to speak of ‘citizenship education’ and ‘participation as influence’? Therefore it will be important to analyse the texts that score a positive value on one of these variables, but not the other. Likewise, if an abstract uses a concept of ‘disability’, then it would make sense saying that the competence or participation difficulty is logically first, and the subject variable logically second. If there is a group of individuals who for example have physical difficulties, then this problematic status, these competence and participation difficulties, entails that there is a discipline conducting research on this subject. In this case, the presence of a concept of competence or participation difficulty predicts a certain outcome on the variable concerning disorder/disability. However, as argued above, competence or participation difficulties do not necessarily entail that the article falls within the field of ‘disability research’, and the fact that a text falls within this category does not necessarily entail that it operates with a concept of participation or competence difficulty. But we must admit that, logically, the pathological condition implies a particular field of problems or issues, to which the research field or discipline constitutes a response. However, in this literature review we do not focus on pathological conditions, but rather on concepts implying a pathological condition. There is an important difference. Nevertheless, there is an epistemological and methodological lesson to be learned from these deliberations. The abnormal may be logically second to the normal, but it is existentially first. This means that our understanding of normal functions, i.e. our conceptual definitions of competence and participation, can be interpreted as a result of the existence of abnormal functions. Conceptually we may therefore learn about what constitutes competence and participation by interrogating the conceptualisations within the fields of disability and participation difficulties. This epistemological and
methodological premise is going to constitute one line of inquiry when we get to the qualitative analysis of the literature.

There is one research field that is dominant above, but which was not given a variable on its own, which is research on Children and Young people as such. Since all articles were about children and young people (if not, they were excluded) it seemed unnecessary to construct a variable indicating a focus on children and young people. Studies of children and young people mostly focus on these individuals in relation to some other context (as described with the variables above). However, there were three or four articles that did not specify a research subject other than ‘child or adolescent research’. These were included in the ‘family’ variable or in one of the other variables, based on an estimate of content of the individual article. The two specific subjects, ‘competence’ and ‘participation’ were chosen from the list above, since they directly addressed the purpose of the literature review. Including these two subjects does not mean that the remaining subjects (or fields) are excluded. It merely means they are not included. This means that the other subject categories are only represented insofar as they appear in connection with either the subject participation or competence. Still, the above list is a good overall impression of the various subjects that appear in a search on children and young people’s competence and participation. The purpose of the review was not just to detect articles concerning children’s and young people’s competence and participation, but more explicitly also competence development. The search strategy captures this theme as well, since the search terms skill* and competenc* also encompass words such as ‘skill development’ and ‘competence development’.

Only the texts treating all three of the concepts in question (Children & Young People, Competence, and Participation) were included in the analysis. Therefore, texts that focus only on children and participation, or children, participation and learning, for example, were not included. This is due to the focus of the BUK-programme, which has children and young people, participation and competence development among its central concepts. This choice does not mean that children’s learning processes are not covered by the search, but only that these are only included if the learning process is conceptualised and termed as either development of skills, abilities or competences. This might also be interpreted as a weakness of the search, i.e. that the term ‘learning’ was not included among the key words. The search has merely identified articles focussing specifically on one specific aspect of learning, which is ‘competence’, ‘skill’, ‘ability’ or ‘capability’. However, the differences between these terms mean that the search includes articles that focus on a specific outcome of learning (skills, competences), but also on the prerequisites for entering a learning environment (abilities, capabilities, competences). The choice of the above search terms thereby implies certain conceptual assumptions. Abstracts focusing on the competences parents or professionals need in order to take care of children were included if and only if all of the three search criteria appeared in the abstract. Moreover, papers treating the challenges qualitative researchers have with conducting participatory research with children were also included. The above described search terms automatically skews the search away from, for example, research on formal education, in which children and young people are exclusively referred to as ‘students’ or ‘pupils’. This does not mean that these types of research are not included in the results (since, as we can see above, both academic achievement, schools and pupils are included as subjects), but only that one might expect a lesser quantity of abstracts addressing these issues because the search terms ‘children and young people’ (plus synonyms) are used rather than the terms ‘pupil’, ‘student’, ‘learning’, ‘school’, ‘academic achievement’, ‘school performance’ etc. In other words, we only cover the research fields insofar as the words ‘children or young people’ and ‘skills’ are
applied. Thus, the very search terms skews the result in the direction of types of research applying the terminology presented above. What is generally at stake in the literature identified are children’s learning processes, only explicitly articulated as a matter of competence development, skills, ability, involvement, participation etc. The search criteria and terms appear below in fig. 3.

**Fig. 3 – Search criteria (in- and exclusion) in the focussed search (including the subjects ‘participation’ and ‘competence’).**

<table>
<thead>
<tr>
<th>Search criteria:</th>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search terms</td>
<td>Child* OR infant OR &quot;young people&quot; OR youth OR adolescen* AND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Competenc* OR capabilit* OR abilit* OR skill* AND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participation OR involvement OR &quot;social inclusion&quot; OR marginalisation OR &quot;social integration&quot;</td>
<td></td>
</tr>
<tr>
<td>Subjects</td>
<td>Participation</td>
<td>Full text, title</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td></td>
</tr>
<tr>
<td>Searches in:</td>
<td>Abstracts</td>
<td>All other years</td>
</tr>
<tr>
<td>Publication years:</td>
<td>2000-2012 (until April)</td>
<td>All other databases</td>
</tr>
<tr>
<td>Databases:</td>
<td>ERIC, Sociological Abstracts, PsychInfo</td>
<td></td>
</tr>
<tr>
<td>Publication type</td>
<td>Peer-reviewed</td>
<td>Grey literature</td>
</tr>
</tbody>
</table>

The new search generated 274 hits. Of the 274 abstracts 14 papers were excluded because they were duplicates, or irrelevant to the purpose of the literature search described above. For example, an article concerning care for the elderly that appeared among the 274 hits appeared in a journal of geriatric research. The reason that this paper had made its way through the search criteria was that the abstract mentioned the **involvement of old people’s children** as a resource in the care of the elderly. Clearly, the word ‘children’, like all other words, changes its meaning within different contexts. Articles were thus only excluded, based on a reading of the abstract if they had absolutely nothing to do with children or young people, competence and participation. Therefore, 260 articles remained (see appendix 1 for a list of these articles). This means that not all of the articles included in the statistical mapping had a conceptually strong or explicit definition of competence, participation and children. Some articles were explicitly treating questions concerning participation and children, whereas the concept of competence (ability, capability, or skill) is only mentioned briefly, and is not an explicit focus point. Furthermore, some of the articles focus explicitly on competence and children, and mention for example only sporadically or randomly that competence is an effect of involvement or participation. This means that not all of the 260 articles included have conceptually strong definitions of all of the three main concepts, which affects the following analysis, and which affects the results of the review.

Following the statistical mapping, 28 articles were chosen for further in-depth, qualitative analysis based on the patterns revealed in the statistical mapping of the 260 abstracts, as well as on the last step in the funnelling strategy outlined in the BUK research plan, focussing on various links between participation, competence and competence development (**BUK Research Plan: 13**). The qualitative analysis therefore only includes articles that refer to children, participation, as well as competence development. The criteria of
inclusion will be elaborated in the beginning of the chapter concerning the in-depth, qualitative analysis. It is important to remember that these two subjects, participation and competence, have been chosen, which do not exactly exclude the remaining subjects above, but rather ‘skews’ the findings towards these two subjects. These findings may very well still include articles that have to do with ‘self-efficacy’, ‘parent-child relations’, and ‘academic achievement’, but only if these subjects are at the same time concerned with either participation or competence.

**Fig. 4 – Flowchart portraying the search process.**

**Pilot Searches**
- In databases ERIC, PsychInfo, Sociological Abstracts, Period: 2000-2012, Peer reviewed literature,
- Search terms: competence, participation, Children & young people (+ synonyms)
  - On ‘title’ only (46 hits)
  - On ‘competence development’ instead of ‘competence’ (52 hits)

**Main Search**
- In databases ERIC, PsychInfo, Sociological Abstracts, Period: 2000-2012, Peer-reviewed literature,
- Search terms:
  - A) Child*, infant*, “young people”, youth, adolescence* AND
  - B) Competency* capability*, skill*, ability* AND
  - C) Participation involvement, social integration, social inclusion, marginalisation

**Focussed Search**
- Subjects: participation and competence.
- A Mapping based on a categorisation of the 260 abstracts.
- Statistical Cluster analysis
- Statistical description of correlations between variables concerning Concepts of competence and participation, their Relation, Age groups, Education status, and Research field or disciplines.

**Qualitative review**
- Selection criteria: Focus on relations between competence and participation (ability to participate, participation leads to skill development, complex, reciprocal, dynamic relation between competence and participation).
- Identification of various specific uses and definitions of competence, participation and competence development.

An excel document was used to list all 260 articles vertically, providing each article with a number corresponding to the ProQuest search report, and with the name(s) of the author(s). Horizontally, different variables were listed, based on the reading of the abstracts in the two preliminary searches, i.e. including subjects (fields or disciplines), and various definitions of the concepts in question (see below for a detailed definition of the variables). The computer programme SPSS, used for quantitative data management and analysis, was applied to describe the quantitative differences and similarities between the variables (described below), and the historical changes in the material.

Moreover, given the method stated in the project plan, we aim to take a closer look at a specific kind of texts. We are specifically interested in the articles that imply either competence development, as well as the articles that explicitly deal with both the concepts of competence and participation, i.e. in terms of conceptualising the relation between these concepts. Ultimately, the articles revealing a relation between the main concepts competence, participation and competence development will be investigated.
qualitatively. If the main focus of a text is on competence, and participation is only mentioned briefly, not playing an active role in the conceptual framework, then this text is excluded. If focus is entirely on participation, and the concept of competence plays a minor role, or if both competence and participation appear, but there is no mention of competence development in one form or another, then this text is equally excluded from the qualitative analysis. In the end, qualitative research is based on the selection of representative cases, the qualities of which may shed light on the complex and multifaceted dimensions of a particular phenomenon.

Variables in the categorisation of the literature
A list of variables including the above mentioned field or subject variables was constructed based on various concepts of competence, participation, age range, and the above mentioned field or subject variables (see below). The variables do not contain the subjects ‘children’ or ‘young people’, because all of the papers, in one way or another, concern children and young people. If the papers do not concern this overall topic, then they were excluded (like the above mentioned paper on geriatric research). I listed the name(s) of the author(s) vertically in an excel document, and the binary variables horizontally, and indicated with a ‘1’ or a ‘0’ whether or not the definition of the variable applied to the article (see below). The figure 1, therefore, signifies a positive value as opposed to a negative value, but it does not represent intensity, hierarchy or degree. The article either fulfils the criteria or it does not. Some of the variables are mutually exclusive, for example the variable indicating whether participation is a result of competence, or competence a result of participation, whereas the subject or field variables are not. A positive value on a given variable concerning competence or participation does not necessarily mean that the abstract applies this particular term (it might instead use one of the synonyms), but rather that this or a similar term with this specific meaning is applied. The number in parentheses indicates the number of texts that fell under this variable. The variables are the following:

Frame variables
Inclusion (151): This variables indicates whether the text was assessed to be worthy of further qualitative scrutiny. If the text concerned children or young people, competence, participation and competence development, and there was an association between these various concepts (not just between two of them, and regardless of the kind of association), the text was given a positive value. This does not mean that the remaining texts were excluded – they still appear in the data set – it is merely an aid for choosing the articles worth of further qualitative analysis. There are 151 articles that were selected for further inquiry. Articles that were not included in this variable are for example those concerning participation and children, but which only mention the word ability in an ordinary sense (‘this educational programme has the ability to…’). That is, the word ‘ability’ appears in the abstract, but it is not a subject of theoretical concern in the article. The 151 cases were analysed using the criteria presented above. Picking the texts that are ‘spot on’ with regards to the above described purpose of the review. If, for example, there were five texts covering the exact same subjects, perhaps only two of them were included, which makes the later selection of texts for qualitative analysis easier. This does not skew the quantitative analysis, because all of the texts are still included in the data set.

Year of publication: the search includes the years 2000-2012, even though 2012 had just begun when the search was initiated. Therefore, there is a dramatic decline in the amount of texts for 2012, in contrast to a
steady increase in publications from 2000. Within this period there is a dramatic increase in the amount of publications in the year 2011.

**Number of text**: Every paper was provided a number corresponding to the number in the ProQuest search report, so that it would be possible later to identify it for qualitative analysis.

**Theoretical (32), empirical (206) or review (23)**: Most articles are both theoretical and empirical. In those cases the text is defined as empirical. Only purely theoretical papers are defined as theoretical here, i.e. articles explicitly aiming to discuss certain theoretical issues without drawing on some form of empirical content.

**Variables concerning concepts of competence**

**Competence difficulty (65)**: Indicates whether the abstract uses a concept of competence (or synonyms) that implies difficulties, for example lack of certain skills or abilities, impairment, disability, handicap, or troubles performing certain skills or competences, i.e. learning difficulties.

**Skills (198)**: The abstract uses a concept of competence or synonyms that imply skills, i.e. motor skills, reading skills, academic skills, cognitive skills, or social skills, provided the concept has an instrumental meaning.

**Ability (154)**: The abstract uses a concept of competence implying ‘ability’, i.e. the ability to manage oneself or a situation. In other words the ability to deal with a situation, a condition, or, more generally to do well in life. Abilities are therefore both physical, but also mental and social. Physical (mental, emotional or social) abilities are often required for participation in sport, as well as for participation in special education programs. Contrary to skills, abilities cannot necessarily be learned, but constitutes a condition, a prerequisite for being able to succeed in a given context in life. There is an obvious overlap between skills and abilities, but skills are more instrumental and specific in character, and abilities more holistic.

**Capability (11)**: This variable detects whether the abstract specifically uses a concept of competence which draws on Amartya Sen and Martha Nussbaum’s capabilities approach (Sen 1992). The capabilities approach focusses on the ‘capability to achieve valuable functionings that make up our lives, and more generally, our freedom to promote objectives we have reasons to value’ (Sen 1992: xi). Sen compares a capability set with a ‘budget set’ in a commodity space (i.e. a person’s freedom to buy commodity bundles), where the capability set in the ‘functionings space’ reflects an person’s freedom to choose from possible livings (Sen 1992: 40). Achieved wellbeing depends not only on the achieved wellbeing, but also on the very capability to function, i.e. on the freedom to choose. The capabilities approach is a critique of standard utilitarian theories of the evaluation of wellbeing, measuring individual’s achieved pleasure. Sen rejects utilitarianism with the argument that resilient inequalities result in different levels of desires and desire-fulfilment. A deprived individual gains pleasure even by small mercies, and is content with modest utilities, whereas a wealthy person does not necessarily appreciate modest achievements (Sen 1992: 55).

**Self-perceived (55)**: This variable registers whether the concept of competence used in the abstract implies ‘perceived competences’ (or experienced or felt competences). Some articles explicitly mention that they have investigated people’s self-perceived competences, skills or abilities. In fact, many quantitative surveys imply such a concept of competence, because individuals who complete a questionnaire concerning their own or other’s competences ultimately state their own perceptions of these competences. However, far
from all quantitative studies draw on such a concept of competence explicitly. An abstract only scores a positive value on this variable if it makes this meaning explicit. It is often parents or professionals who are asked to state their views on children’s competences, but also studies that for example investigate whether 8 or 9 graders feel that they have learned something from the curriculum in question.

Co context (96): This variable is used in cases where the abstract defines competence in relation to a context. It is a situated concept of competence. It is to be expected that the concept of competence contextually defined is associated with participation, because this variable implies that people learn through participation (in a social context, in practice). It is among others Lave and Wenger’s theoretical developments on learning that inspire this variable.

Competence development (95): This variable indicates whether the abstract applies a concept of competence development, or synonyms such as skill development, or development of ability. Abstracts using phrases such as ‘learning new skills’ or ‘acquiring social competence’ are also included in this category. Abstracts that merely use the term ‘learning’ are not automatically included under this variable, unless the article specifically terms learning processes as competence development. I am familiar with the discussion whether competence development is a pseudonym for learning.

Variables concerning concepts of participation

Present (142): This variable signifies that the concept of participation used in the abstract implies that children or young people (caregivers or parents) are present. It does not necessarily state how the individuals are participating, only that they are in the class or on the team, so to speak (as opposed to not being enrolled). For example, an abstract may state that 253 school children participated in the survey, or it may state that it investigates the outcome of children’s participation in after-school-programs or -activities. Abstracts using a more elaborate or multi-layered concept of participation may also at the same time use this concept of participation. The variables below are therefore not mutually exclusive.

Involved (193): The abstract uses a concept of participation implying that individuals are involved, for example actively involved, for example social participation, active participation, or ‘degree’ or ‘intensity of participation’. A pupil is present but absent in the classroom if he or she is staring out of the window, but involved if actually participating in what is going on (regardless of how we might otherwise characterise the nature of the involvement). It often implies some sort of sharing of values or beliefs, a sense of a mutual project. In studies on handicap or disability the term implies that the child or young person is able to perform certain tasks.

Feel part (72): This variable registers all the abstracts that use a concept of participation implying that the participants feel involved. It explicitly focusses on the emotional aspect of participation.

Influence (102): This variable implies involvement, in the sense described above, but explicitly and also implies that the participants have a say with regards to the rules or norms of participation. One of the purposes of this form of participation is exactly to challenge, shape and/or create the conditions or rules of participation in order to generate a specific learning outcome (Hart, Miljø og Sunhedspæd: Learning through participation, 2008). Or, more accurately, this form of education emphasises process over learning outcome. Citizenship education, deliberative democracy, and political education are expected to apply a concept of participation implying influence.
Participation difficulties (58): The abstract implies difficulties of participation. This variable is expected to be highly correlated with the variable ‘competence difficulty’. If one has learning difficulties or is physically impaired, it is primarily a question of ‘competence difficulty’, but disabilities often directly imply participation difficulties. This is why special education focuses on enabling children to participate, to shape the context in such a way so that the participation difficulties are lessened. But one may have difficulties participating for other reasons than lack of competences. For example, children whose parents cannot afford having their children in expensive education programmes could also be described as a participation difficulty.

Development of participation (63): articles implying development of participation are included in this category. Such texts might concern school children participating in developing the conditions and rules of their participation, for example in citizenship education. It might also concern health promoting schools where emphasis is on the development of the possibilities that children have for co-constructing the environment. Another example might be disabled children or young people who have difficulties participating, where emphasis is on developing a context that enables these children to participate.

The above various definitions of competence and participation have been conjoined so that two variables have been created, one adding the five concepts of competence (minus the one on capability), the other the five concepts of participation, as to indicate the degree of nuances in the conceptualisation. These two new ordinal scale variables range from 1 to 5, where 1 indicates a simple concept of competence or participation, and 5 indicates a very multifaceted concept. The values are scattered to form a normal distribution, where the values 1 and 5 are rare, and the values 2, 3 and 4 are common.

Variables concerning the connection between participation and competence

Primarily competence (48): The abstract seems primarily to do with competence, and participation plays a minor role.

Competence and participation (122): The abstract seems to concern both competence and participation. However, these two concepts are not necessarily connected. An article may for example focus on dropout rates among young people with special needs, and investigate among others the influence of parental participation as well as children’s social competence. These two subjects may be theoretically connected, but they may also merely appear as two unconnected variables.

Primarily participation (90): The abstract seems primarily to do with participation, and competence plays only a minor role. This and the above two variables are mutually exclusive.

Competence determines participation (68): This variable signifies that competence determines participation, i.e. if, for example, children need certain competences or abilities to be involved in a certain activity. For example, children with physical impairments need specific abilities in order to participate in a certain educational programme. In this case the ability determines whether an individual is able to participate. This and the following three variables are mutually exclusive. Physical competence may be a requirement for participating in physical education or leisure activities.

Bi-conditional connection between competence and participation (92): This variable signifies co-dependence between participation and competence. Participation influences the competences achieved, and the competences influence the form of participation. A child with a neurological disorder may need
certain competences in order to participate in household chores or in social activities with other children, and at the same time participating in these activities enables the child to develop the ability to take part.

**Non-connection between competence and participation (31):** Both concepts appear in the abstract, but they are not linked. There is no connection whatsoever between competence and participation.

**Participation determines competence (69):** If a child or a young person participates in educational activities, be it high school sport, mathematics or decision-making processes, the learning outcome is competence (be it social, physical or academic competences). It is to be expected that this causal connection is associated with the acquisition of skills.

**Variables concerning age range**
The age ranges used in this investigation were difficult to establish. First of all, the database PsychInfo operates with the age ranges below used below, whereas education research and sociology does not necessarily make the same distinctions between age groups. Mostly, the abstract describes the age or grade of the children in question, but some, however, does not mention the particular age, but concerns children and young people altogether. Sometimes, then, the context has been decisive when determining the age of the children and young people. There is also a big difference between the number of years covered by the age ranges (the class ‘infants’ cover only two years and adolescents a five year period. The categories below have to do with age more than the children’s institutional affiliation. ‘School age’ is merely an indication that the children are between six and twelve, and not that they have actually started in school (in some countries school starts earlier, in some later). It might be interesting to see if the research concerning concepts of participation and competence appear within specific age groups, also whether these concepts are defined differently across the age groups. The following four age groups are not mutually exclusive: **Infant (23)** (0 yrs - 23 months), **Pre-school (62)** (2 yrs - 5 yrs), **School age (157)** (6 yrs – 12 yrs), **Adolescence (143)** (13 yrs – 17 yrs).

**Variables concerning education**

**Non-education (91):** This variable indicates that the abstract does not seem to imply an educational purpose or institution, or the topic of learning. In some cases it is difficult to make this distinction, for example in psychological studies of children’s development. One might argue that such studies are necessarily about learning (children developing is another way of saying that they learn). One might also say that education is an implicit premise in most late modern contexts. If an article investigates, for example, the relation between motor competence, physical fitness and self-perception in children, and uses an experimental setup or a statistical research design, then this study might have educational implications. But if the abstract itself does not mention any of such prospects for learning, then it is classified as non-educational. If the abstract only mentions the associations between for example gender, motor competence, and the children’s self-ratings of their competences, and is only concerned about describing such correlations without discussing the implications for learning theories or educational aspects otherwise, then it is labelled as non-education. Articles concerned with children’s or adolescents’ development are categorised under the variable ‘child development’ (see below).

**Informal education (140):** Abstracts using an implicit notion of learning or education, but that take place outside of formal educational systems are categorised as informal education. Such studies might investigate how children in all kinds of contexts develop competences or skills, develop citizenship
competences, or learn to cope in various situations. It also encompasses out-of-school activities and after-school programmes. If the learning outcome concerns social skills as an outcome of extracurricular activities in schools, this study will be categorised as informal. If it establishes a link between children’s academic achievement in school as a result of participation in extracurricular activities, then it will be classified as both informal and formal education.

**Formal education (87):** Articles that appear within a formal educational system are categorised under this variable. Formal education might of course be schools, high schools, or kindergartens. But it also includes for example studies of adolescents in early job training (in case this activity is organised as a part of their formal education in a school or an educational programme). Articles classified such are expected to concern academic achievement, curriculum studies etc.

The above two categories are not mutually exclusive. Non-education and education (formal or informal) are, however, mutually exclusive.

**Subject, discipline or field variables**

**Disorder, diagnosis, disability, and disease (77):** As the name of this variable indicates, it accumulates all abstracts that concern children or young people who either have a diagnosis, a handicap, a disability or impairment, a neurological disorder, or are otherwise mentally or physically challenged. It does not make a distinction between different concepts appearing within medical, psychological, physiotherapeutic, and special education. Researchers in physiotherapy or special education think of their own concepts of illness and disease as a counter reaction to medical concepts of disease. Typically, it is argued, medical concepts of disease imply a negative idea of a deficit or a lack, whereas physiotherapy and education research typically try to conceive the disease or disability in relation to an environment, thereby emphasising possibilities and challenges. These theoretical discussions are recognised as important, but this is not the place to play out these conceptual differences. All articles that concern diagnoses, disorders, impairments, or disabilities are categorised under this variable, regardless of all the however important theoretical disagreements within this field. An article that focusses on the special needs of children with learning difficulties is categorised under this variable, as is an article that investigates the participation of children with ADHD or developmental disorders. Articles appearing here are likely to be found also within the variable concerning health (see below), but not necessarily.

**Health care, mental health, health promotion (92):** Articles that concern health in a broad or a narrow sense are categorised under this variable. It might be articles concerning health professionals’ competences to help children, or it might concern health promoting schools. An association between this and the above variable is to be expected, but they do not necessarily converge. Articles that treat children’s or young people’s well-being are also categorised under this variable, for example articles concerned with adolescents and prevention of unhealthy lifestyles (drugs, alcohol abuse etc.). Such articles do not appear in the above category concerning disorder, diagnosis or disability, since the disorder is conceived as a social problem in this case.

**Sport and physical activity (39):** The articles thus categorised concern physical education and sport, for example investigations of the connection between children participating in sport and the achievement of certain competences, for example academic, physical, or social skills.
**Physical, motor and sensory (41):** These articles investigate the connection between sensory, motor or physical abilities, skills, or functions, on the one hand, and participation on the other.

**Child development, adolescent development (77):** These articles explicitly concern psychological studies of children or adolescents’ development.

**Social: Citizenship, social welfare, child welfare (97):** This variable assembles studies that deal with social issues and children, i.e. studies that explicitly make a point of the social context and social interaction. This includes citizenship education, political education, positive youth development, life skills. Also, this category includes social protection, child protection, children’s social welfare, special education focussing on social change etc. It includes studies that explicitly and institutionally concern social issues, i.e. theoretical or practical attempts to promote children’s well-being. This also includes for example health promotion. Also, articles explicitly drawing on a sociological framework are categorised within this variable, as well as articles concerning law, i.e. delinquency etc.

**Education (136):** Articles that deal with education in a broad sense, i.e. child-rearing, curriculum studies, academic achievement. It is therefore also education in the sense that Rousseau and Dewey use the term. Curriculum studies and articles concerning academic skills and achievement will therefore appear in combination between the subject variable ‘education’ and the variable ‘formal education’. Health education also appears in this category.

**Family, parental skills, foster parents, maternity (70):** As the title indicates this variable largely covers all subjects to do with family issues, i.e. maternity leave, father’s involvement in child-rearing and homework, foster parents and children, non-professional caregivers (such as grandparents) etc. Moreover, this variable includes the subject of parental skills (since being a competent parent is not something that comes automatically with being a parent), families that have problems, child neglect, teenage-family issues etc.

**Professional competences (54):** articles concerning the various professionals and the competences that these professions are expected to have in order to provide good child care or be good teachers, etc. Emphasis is on the professionals in the relation between children and professionals.

**Leisure, after-school, play, extracurricular (64):** Everything to do with leisure activities, including after-school-programmes, play, etc. Child and youth research is interested in how and what children learn when they are participating in activities beyond the school or other educational institutions.

**IT, technology (6):** This variable concerns children and IT, new technology, cell phones, media etc.

**Children participating in research (14):** Methodological reflections concerning children’s participation in research as co-researchers, but also issues involving ethical concerns when conducting research on and with children.
Statistical mapping of concepts of participation, competence and competence development and the fields or disciplines in which these various concepts appear

Historical changes
In table 5 below (fig. 5) the number of publications for every year from 2000-2012 are portrayed. There is a gradual increase in the number of publications from 2000 to 2011. In 2003 there is a sudden increase from 9 to 24 publications, then a decrease, and then another an increase in 2006 and in 2009, followed by a colossal jump in 2011 with 53 publications. Regardless of the underlying increasing tendency of overall publications, the increase in 2011 is still dramatic. We can draw no conclusions for the year 2012 since the literature search was conducted in April.

Fig. 5 – Number of publications in the literature search when focussing specifically on the subjects ‘competence’ and ‘participation’ in the main search.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>10</td>
</tr>
<tr>
<td>2001</td>
<td>3</td>
</tr>
<tr>
<td>2002</td>
<td>9</td>
</tr>
<tr>
<td>2003</td>
<td>24</td>
</tr>
<tr>
<td>2004</td>
<td>16</td>
</tr>
<tr>
<td>2005</td>
<td>10</td>
</tr>
<tr>
<td>2006</td>
<td>23</td>
</tr>
<tr>
<td>2007</td>
<td>19</td>
</tr>
<tr>
<td>2008</td>
<td>21</td>
</tr>
<tr>
<td>2009</td>
<td>35</td>
</tr>
<tr>
<td>2010</td>
<td>27</td>
</tr>
<tr>
<td>2011</td>
<td>53</td>
</tr>
<tr>
<td>2012</td>
<td>(9)</td>
</tr>
</tbody>
</table>

The graphs below (fig. 6) portray the sum of a number of variables for every year between 2000 and 2011. Regardless of whether it is the kinds of competence, kinds of participation, age groups, kinds of education, or subject variables, it is evident that there is an increase in the amount of articles in 2003, 2006, 2009, and in 2011. These seem to be the years that had a growth in the amount of articles when searching for a connection between children and young people, competence and participation. Comparatively, the years 2001, 2005 and 2008 had a decrease in the amount of published articles. Since the time period is so short there is no need to draw substantive conclusions regarding the interest in these topics. It might very well be that there were a number of important conferences in the years before the increase in publications, resulting in the publication of a number of special issues one or two years after, or the differences may simply be accidental. What is generally confirmed here is that there is an overall increase in publications concerning children and young people, competence and participation (which corresponds to the finding mentioned in the introduction above). It is perhaps surprising, however, that different subjects and supposedly different definitions of competence and participation, fluctuate in a similar pattern. Mutually excluding variables such as non-education and education (formal and informal) decrease in 2001, increase in 2003, decrease in 2005, increase in 2006, decrease in 2008, and increase in 2011: one might perhaps have suspected that if the amount of articles concerning education increased, then the amount of texts concerning non-education would decrease. But there is a general de- and increase in the total sum of articles in those years.

Fig. 6 – Six graphic displays of the historical development on various variables (competence, participation, relation between competence and participation, education, age, and field/subject variables.)
Cluster analysis:
A cluster analysis, using all of the above variables (except inclusion, year of publication, number of text, theoretical/empirical) was conducted. This analysis revealed three clusters, using a two-step algorithm and 39 variables. The cluster analysis was repeated several times, excluding some variables and including others. The same pattern appeared continuously, the overall predictor of 0.2 also with an input of only 22 variables, indicating the same three clusters. This reveals but a weak pattern in the variation. However, the purpose of this cluster analysis is not to generalise to a larger population, but only to see which of the variables in this particular sample are associated, and whether some of the variables could be grouped together. Therefore, it might be worth taking a closer look at the cluster analysis, in order to identify the separation and coherence of the variables. Are there any of the individual variables that seem to validate or challenge the clusters identified? Below (fig. 7) is an illustration of the ten most important variables in the model, and below that (fig. 8) an illustration of the quality of the model. Furthermore (fig. 9) there is a list portraying the various variables in the cluster analysis vertically on the left hand side, and the three different clusters horizontally in the top row. Only the variables that were significant for the construction of the clusters are reported here. The cells indicate (with a 1 or a 0) whether or not the variable is generally present within this cluster, as well as the percentage of articles that score either 0 or 1 on this variable.

Fig. 7 – A representation of the ten most important variables in the cluster analysis.
Fig. 8 – A model of the quality of the cluster analysis.

Model Summary

<table>
<thead>
<tr>
<th>Algorithm</th>
<th>TwoStep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>25</td>
</tr>
<tr>
<td>Clusters</td>
<td>3</td>
</tr>
</tbody>
</table>

Cluster Quality

<table>
<thead>
<tr>
<th>Silhouette measure of cohesion and separation</th>
<th>-0.8</th>
<th>-0.6</th>
<th>-0.4</th>
<th>-0.2</th>
<th>0.0</th>
<th>0.2</th>
<th>0.4</th>
<th>0.6</th>
<th>0.8</th>
<th>1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>#1 Ability to participate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal education</td>
<td>0 (90.4%)</td>
<td>1 (59.0%)</td>
<td>1 (79.8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal education</td>
<td>0 (100%)</td>
<td>1 (60.3%)</td>
<td>0 (63.3%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disease, disability, disorder</td>
<td>1 (mean: 0.71)</td>
<td>0 (mean 0.13)</td>
<td>0 (mean 0.14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation understood as influence</td>
<td>0 (94.9%)</td>
<td>0 (97.4%)</td>
<td>1 (81.7%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation ⊕ competence</td>
<td>0 (83.0%)</td>
<td>0 (94.9%)</td>
<td>1 (69.7%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence contextually defined</td>
<td>0 (87.7%)</td>
<td>0 (87.2%)</td>
<td>1 (70.6%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation determines competence</td>
<td>0 (95.9%)</td>
<td>1 (62.8%)</td>
<td>0 (84.4%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence difficulties</td>
<td>1 (60.3%)</td>
<td>0 (91.0%)</td>
<td>0 (82.7%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation defined as presence</td>
<td>1 (68.5%)</td>
<td>1 (82.1%)</td>
<td>0 (74.3%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of participation</td>
<td>0 (91.8%)</td>
<td>0 (96.2%)</td>
<td>0 (50.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social welfare, Citizenship education</td>
<td>0 (mean: 0.07)</td>
<td>0 (mean 0.32)</td>
<td>1 (mean 0.61)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability determines participation</td>
<td>1 (60.3%)</td>
<td>0 (87.2%)</td>
<td>0 (87.2%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling of participation</td>
<td>0 (79.5%)</td>
<td>0 (97.4%)</td>
<td>1 (50.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation understood as involvement</td>
<td>1 (65.8%)</td>
<td>1 (51.3%)</td>
<td>1 (96.3%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation difficulties</td>
<td>0 (52.1%)</td>
<td>0 (97.4%)</td>
<td>0 (80.7%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>1 (mean 0.62)</td>
<td>0 (mean: 0.23)</td>
<td>0 (mean 0.27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of competence</td>
<td>0 (89.0)</td>
<td>0 (55.1%)</td>
<td>0 (52.3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence as skill</td>
<td>1 (57.5%)</td>
<td>1 (93.6%)</td>
<td>1 (76.1%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence as ability</td>
<td>1 (63.0%)</td>
<td>0 (59.0%)</td>
<td>1 (69.7%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cluster one: ‘Ability determines participation’, health, non-education and disability**

The strongest predictor is the variable ‘non-education’ (not included in the representations above, because it is already indicated indirectly by the scores on the variables ‘informal’ and ‘formal education, cf. fig. 9).

The variables ‘informal education’ and ‘formal education’ automatically indicate a clear-cut difference between articles concerning education, and articles that do not. It is therefore possible to identify two types of articles, one concerning education, and another concerning non-education. This seems to constitute a fundamental difference, given a two-step cluster analysis sorting the inputs by importance. There are a number of variables more often associated with the variable ‘non-education’ than with
variables concerning various aspects of education. If the article does not concern education, there is a very good chance (94.1%) that participation does not determine competence, and that there is not a bi-conditional relation between participation and competence (71.8%). There is a 50.6% chance that the articles within this cluster show a relation between competence and participation where an individual's abilities determine his or her participation in whatever context. Therefore, it is not surprising that there is a 62.4% chance that the article concerns disorder, disability or disease (in these cases it is more obvious that an individual need certain abilities or capabilities in order to participate). Moreover, there is a 58.8% chance that it is categorised under the variable 'health'. This should be compared with the fact that the other two clusters portray a 92.4% and an 82.6% chance that the article does not concern disorder, disability or disease. As the above analysis shows, the clusters reveal only a certain amount of separation from each other, and on the other hand only a limited overall cohesion. Looking at the internal cohesion of the clusters it becomes visible that the cluster called ‘non-education’ is secured by the fact that it does not concern education. It also demonstrates an overweight in the type of relation between competence and participation, where competence (understood as ability) is likely to determine participation rather than the other way around. And it is likely to concern the areas health and disability. These are the strongest predictors.

Cluster two: Education, participation leads to acquisition of skills
Let us take a look at the two remaining clusters. The second cluster has to be characterised in relation to the third, because they share certain properties and differ with regards to others. The second cluster portrays a 94.4% chance that the article does not score a positive value on the ‘Non-education’ variable. The article has a 72.5% chance of concerning informal education, a 54.6% chance of concerning formal education, and likewise a 72.5% chance of concerning the subject ‘education’. Remember that the variables informal and formal education do not mutually exclude each other. Some texts within the second cluster score a positive value on both informal and formal education. The articles in the third cluster mainly score a positive value on informal and not on formal education. Cluster two therefore scores a negative value on the ‘non-education’ variable. This is also the case for the remaining third cluster (informal education 89.4% and a 97.0% chance that it does not score ‘1’ on the ‘non-education’ variable). These two clusters seem roughly to concern education (in a broad sense). Moreover, there is a very good chance (95.4%) that if the article appears in this second cluster, it does not demonstrate a bi-conditional connection between competence and participation, but a 56.9% chance that participation determines competence. On the contrary there is a good chance (78.3%) that competence does not determine participation. Therefore, it is difficult to say precisely what it is that unites this particular cluster, other than the fact that almost all of the articles do not score a positive value on the ‘non-education’ variable, and competence development is likely to be a result of participation. Looking at the variable ‘competence as skill’ there is an 89.9% chance that the article operates with this definition of competence. But the competence definitions were not mutually exclusive, which means that an abstract that uses a broad and contextually defined concept of competence might also at the same time operate with a concept of competence that is functional, i.e. ‘skill’. Therefore, the two other clusters score 74.2% (third cluster) and 60.0% (first cluster) respectively on the ‘competence as skill’ variable. There is, however, a greater chance that an article in this cluster uses a concept of competence as skill. This corresponds with the fact that many of these texts concern education, and approximately fifty per cent of them formal education. Moreover, the article might have a nuanced view of competence, or different degrees of competence.
Cluster three: Contextual concepts of competence and participation, reciprocally connected

As indicated above, the third cluster also concerns education in a broad sense, but these articles are characterised by a specific kind of concept of participation. There is an 84.8% chance that the articles within this cluster operate with a concept of participation defined as 'influence'. This means that participation is not (but might also be) mere presence or involvement, but also indicates that participants somehow have an influence on whatever is going on, and/or that the participation and competences are determined contextually. In comparison, the above two clusters have a 78.9% and a 72.9% chance respectively that the concept of participation does not concern 'influence'. Moreover, and more importantly, this cluster strongly indicates (95.5%) a bi-conditional relation between the concepts participation and competence. This means that participation leads to competence development, and that the competences or abilities of the participants condition the form of participation within the articles comprising this cluster. In comparison, again, the two other clusters have a 95.4% and a 71.8% chance that there is no two-way connection between participation and competence. The concept of competence within this cluster is most often contextually defined (80.3%), whereas it is not contextually defined within the two other clusters (with a 79.8% and 75.3% chance, respectively). Finally, it is likely to imply development of competence or development of participation (59.1% and 57.6%), contrary to the two other clusters that do not evidently seem to imply development of competence (with a negative chance of 59.6% and 85.3% in the first cluster, and an 85.9% and 89.4 in the second). Articles within this cluster seem more likely to be about development of competence or participation than the two others, but it is more accurate to say that the two other clusters are less likely to concern development of competence and participation. It often includes (74.2%) articles categorised as ‘social’, i.e. concerning citizenship education, child welfare, learning through participation, situated forms of learning, health promotion etc.).

Characteristics of the three clusters

There seem to be three clusters that could be identified above. One could be defined negatively as Non-education (likely concerning health, medicine, diagnoses, disorders, and impairments, operating with a concept of ability determining participation). It would be misleading to name this variable ‘Medical concepts of competence and participation’, because there is only 62% chance that the articles concern disability and a 59% chance that it concerns health, although it is comparatively very unlikely that the other two clusters concern these issues. The next cluster is difficult to name as well, but there is a good chance it concerns education, and more likely than the other two clusters to concern formal education, and that it defines competence as ‘skill’. It often refers to studies that examine the acquisition of skills through various kinds of educational programmes (sport, various courses) but not necessarily within formal educational settings only (extracurricular or leisure activities). Moreover, articles within this cluster are very unlikely to have a concept of competence and of participation that reciprocally condition each other. The third cluster could be termed contextually defined concepts of competence and participation, since, as described above, it often implies a contextually defined concept of competence and participation, a concept of participation that implies influence, and development of competence and/or participation. The three clusters and their most general characteristics are listed below:

1. Ability to participate (Health and disability, education not a theme).
2. Acquisition of skills (Skills acquired through participation in education, school, sport, leisure).
3. Contextual and complex concepts of competence and participation (competence and participation reciprocally condition each other, social welfare, health promotion, citizenship education).

25
The three clusters are arguably constructed negatively, i.e. less by their internal coherence than their separation. Most of the time, two clusters appear identical on one specific variable, but differ significantly from a third. This is the case on most of the variables (if they show any difference at all) that two clusters appear identical and the third differs. However, the cluster that differs keeps changing for each variable. For example, within cluster 1 and 2 we find a concept of participation understood as ‘presence’. In this case these two clusters have this variable in common. On the other hand, both clusters 2 and 3 are likely to concern informal education, whereas cluster 1 is not. Here, clusters 2 and 3 share this property. Cluster 1 and 3 are likewise likely to concern the concept of ability, whereas cluster 2 is not. This is due to the fact that we operate with binary values (either 0 or 1), and not scales, ratio or levels. Either an abstract scores a positive value on a particular variable or it does not.

These three clusters will be used as a leitmotif for the subsequent qualitative analysis later in this report. Basically, it demonstrates that the central concepts are related differently to each other. Sometimes children have to have certain abilities or competences to be able to participate. Sometimes they have to participate to acquire certain skills, and sometimes there is a reciprocal, dynamic interplay between these two concepts. Moreover, it shows that these clusters are connected to variables such as research fields, subjects or disciplines, and to different forms of education. The cluster analysis is a generalisation that obscures the connections that do not fit into this overall pattern. It draws out a specific pattern and obscures the less obvious connections between specific variables. There might be specific associations that remain invisible in the cluster analysis. The following mapping of the correlations between the 39 variables therefore aims to draw out specific connections between the various variables.

**A mapping of correlations between the variables**

In the following we will proceed with a statistical analysis of the material based on the Pearson test, calculating the correlations of the 39 variables presented above in a correlation matrix. In order to present these correlations in a clear and orderly fashion, this matrix will be broken up in bits, so that we can analyse one class of variables at the time. The Pearson correlation and the p-value as a measure of significance are reported. In the following, aspects of these correlations will be elaborated in order to describe the correlation between the various concepts of competence, of participation, of the causal connections between the variables, age groups, education status, and the various fields, subjects or disciplines. The term *correlation* is used to indicate a linear connection between two variables, and the correlation coefficient (Pearson r) describes the degree of correlation between those two variables. The measure $r^2$ is a measure of how big a proportion of the variation that this given variable explains. If the $r$ value is .300, then this variable explains 9% of the variation (0.3x0.3=0.09). The significance (p-value) describes the probability that if we draw out randomly an article from the data set scoring either 1 or 0, then the p value is a measure of the *probability* that this article scores either 1 or 0 on another variable (Andersen & Jakobsen 2004). If a given variable explains 9% of the variation (and the p value is below 0.05, i.e. is significant) then a given variable explains 9% of the variation with a 95% (or better) chance. The correlations and the significance test are normally used to generalise from a small sample to a larger population, but in the following we only use the correlation coefficient to indicate an association between the various variables analysed here. The degree of correlation need not be high, because we do not aim to generalise the correlations to a larger population. If, for example, the concept *ability* is significantly correlated with the research area *disability studies* then we might say that there is a good chance that articles concerned with children’s disabilities make use of a concept of *ability* to describe the type of competence that these
children either have or do not have. There is, in this case, a (more or less) linear connection between the variables ability and disability studies. However, this does not necessarily imply a causal connection. We might only speculate that a focus on for example visual impairment causes an article to apply a concept of ability rather than for example skill. The supposed causal connection remains a source of theoretical speculation. Sometimes the term association will be used, particularly in cases where the causal connection is unclear. In the following, the correlation coefficient (Pearson r) and the significance test (p-value) will only be used to indicate correlations in this particular sample of articles. This might indicate a number of theoretical connections between various concepts of competence, participation, age, research areas, subjects or disciplines, and the types of education that these articles imply. The purpose of applying the Pearson and significance tests is to conduct a mapping of the patterns that appear in this data set.

When different variables are correlated with each other (bi-variate), a number of significant correlations (at a 0.95 confidence interval) appear. The significance test is a measure of how well the correlation can be generalised to a wider population. However, the following is an analysis of this particular sample of texts that appeared after a search on the above mentioned terms. Therefore we will focus only on the associations in this data set, and not focus on whether the findings can be generalised to a larger number of articles. This would not be possible, because this particular population of texts is the only one that exist, given the above established search criteria. The findings, therefore, cannot in principle be generalised to other populations of articles. However, the significance test is at the same time a measure of how well the variables are correlated, so therefore only the significant correlations are included. Most of these (positive and negative) correlations are not surprising, but some of them elaborate the picture drawn above, concerning the identification of the three clusters, as well as some of the correlations that obscure the clarity of these three clusters, or even constitutes a counterargument concerning this order. In any case, the purpose of correlating these different types of variables is to draw a more detailed picture of how the different groups of variables are associated with each other. We thereby hope to be able to find interesting positive or negative connections (or non-connections) that are not immediately disclosed in the cluster analysis, i.e. to better understand the material in depth (see the end of this chapter for a matrix portraying an overview of the various correlations). It must be stated loud and clear that what in the following is investigated is not actually the relations between competence, participation, children and young people, but rather how a sample of articles has used these different concepts, i.e. how these concepts are defined, used, operationalized or otherwise connected in the abstracts.

Various associations between aspects of competence
In the following correlation matrices (fig. 10-22) the correlation coefficient Pearson r is reported first, and second (in parentheses) the significance test (p-value). For clarity, black typing indicates a positive correlation, and red typing indicates a negative correlation (which makes it easier to recognise the type of association). Only the significant correlations (at a 0.95 confidence interval) are reported.

**Fig. 10 – Correlation of various variables concerning concepts of competence.**

<table>
<thead>
<tr>
<th></th>
<th>Skills</th>
<th>Ability</th>
<th>Perceive</th>
<th>Context</th>
<th>Capability</th>
<th>Co difficul</th>
<th>Com dvlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.196 (.001)</td>
<td>-.156 (.012)</td>
<td>.181 (.003)</td>
</tr>
<tr>
<td>Ability</td>
<td></td>
<td>.359 (.000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived</td>
<td></td>
<td>-.143 (.021)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.158 (.011)</td>
</tr>
<tr>
<td>Context</td>
<td>.359 (.000)</td>
<td></td>
<td>-.143 (.021)</td>
<td></td>
<td>.156 (.012)</td>
<td></td>
<td>.280 (.000)</td>
</tr>
</tbody>
</table>
Looking at the competence variables first, we see that ‘competence difficulties’ is negatively correlated with ‘competence as skill’ (-.156), but positively correlated with ‘competence as ability’ (.154, p 0.013). This is not surprising, since disability studies are grouped under ‘competence difficulty’, and that these studies are less likely to emphasise skills and more likely to talk about individuals’ abilities to do something. The skill variable is moreover positively and highly significantly correlated (.181, p 0.003) with competence development, which might indicate that the concept of skill is used to describe a specific outcome of a learning process. If a person participates (in for example an after-school programme, or in high school sport), the child or young person acquires certain skills (academic skills, communication skills, self-regulation skills, leadership skills). The only surprising thing is that this association between competence development and skills is not very high (explaining less than twenty per cent of the variation). Moreover, the concept of ability is positively correlated with competence contextually defined (.359) as well as with competence difficulty, which is not surprising, since ability presupposes a context vis-à-vis which a person is able or unable to perform some activity. Moreover, when children or young people have difficulties performing, then this difficulty is typically understood as ability, which is seen for example in disability studies. The variable ‘perceived competence’ is negatively correlated (-.143, p 0.021) with the variable ‘competence contextually defined’. Such studies are typically to do with whether children’s perceptions of their own competences influence their level of competence within various areas, for example physical skills, or social skills. In other words, these studies investigate if the ‘belief in oneself’ causes a child to become, for example, a better athlete or a better friend. The concept of perceived competence is also often found in studies where parents are asked to assess their children’s level of competence with regards to various issues (social skills, anger management, self-regulation, academic skills etc.). Moreover, the variable perceived competence is negatively correlated with competence development (-.158, p 0.011). Abstracts reporting statistical investigations of children’s competences often only report a correlation or an association between this variable and others, without explicitly indicating theoretically whether or how the acquisition of these competences was developed or learned. Statistical research sometimes only reports the current state of things, without taking a historical or developmental perspective (which is necessary if one wants to investigate the development of competences). The capabilities approach is correlated negatively with skills (-.196, .001), and positively with competence defined in relation to a context (.156,.012). Last, competence development is correlated with competence contextually defined (.280), which indicates that studies of learning processes (competence development) not only typically take the context into account, but also define the competence that is developed in relation to the environment.

To sum up, we have four different kinds of texts concerning competence: 1) those to do with ‘skills and competence development’, 2) with ‘ability, context, and competence difficulty’, 3) with ‘context, capabilities and competence development’, and 4) those concerned with ‘perceptions of competence’. 

<table>
<thead>
<tr>
<th>Capability</th>
<th>-.196 (.001)</th>
<th></th>
<th>.156 (.012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co difficulty</td>
<td>-.156 (.012)</td>
<td>.154 (.013)</td>
<td></td>
</tr>
<tr>
<td>Comp dvp.</td>
<td>.181 (.003)</td>
<td>-.158 (.011)</td>
<td>.280 (.000)</td>
</tr>
</tbody>
</table>
Various aspects of participation correlated

**Fig. 11 – Correlation of various variables concerning concepts of participation.**

<table>
<thead>
<tr>
<th></th>
<th>Presence</th>
<th>Involved</th>
<th>Feel part</th>
<th>Influence</th>
<th>Pa difficulty</th>
<th>Part devlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involved</td>
<td>-.396 (.000)</td>
<td>-.299 (.000)</td>
<td>-.438 (.000)</td>
<td></td>
<td>-.386 (.000)</td>
<td></td>
</tr>
<tr>
<td>Feel part</td>
<td>-.299 (.000)</td>
<td>.306 (.000)</td>
<td>.383 (.000)</td>
<td>.210 (.001)</td>
<td>.231 (.000)</td>
<td>.332 (.000)</td>
</tr>
<tr>
<td>Influence</td>
<td>-.438 (.000)</td>
<td>.383 (.000)</td>
<td>.471 (.000)</td>
<td></td>
<td>.465 (.000)</td>
<td></td>
</tr>
<tr>
<td>Part diffic</td>
<td></td>
<td>.210 (.001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part devlp</td>
<td>-.386 (.000)</td>
<td>.231 (.000)</td>
<td>.332 (.000)</td>
<td>.465 (.000)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Many of the articles define participation as mere presence, i.e. children are present in the class, on the sports team, or in the after-school educational programme after a certain length of time. In these cases the article is attributed a positive value on the ‘participation as presence’ variable, indicating mere presence. Quite often the abstract uses this definition of participation, and at the same time a richer definition, for example if participation is one of the core issues debated in the study. In this case the abstract scores a ‘1’ in ‘presence’ as well as in for example ‘participation as involvement’. Quite often it seems as if there are several definitions of participation as well as of competence in the abstract (on average there is at least two, and rarely more than four different aspects of competence as well as of participation in a study). For example, some research fields use the expression ‘levels’ or ‘intensity of participation (or involvement)’, indicating that the concept itself is multifaceted (see for example Busseri et al. 2006). However, there seems to be a tendency that if participation is defined as presence, the article is less inclined to define participation as involvement. In fact, ‘participation as presence’ is very significantly (p 0.000) negatively correlated with participation as involvement (-.396), as it is with ‘feeling of participation (-.299), with ‘participation as influence’ (-.438), and with development of participation (-.386). All of these correlations are significant at a 0.000 level. Judging by the abstracts, many articles did not explicitly concern participation, but merely used the term in the sense of ‘presence’, and these abstracts typically applied a more nuanced concept of competence. The same goes for the concept of competence. If the abstract mentions ‘skills’ as one of many variables, but focus lies elsewhere, then the abstract only scored a positive value on ‘skill’, and is negatively correlated with the other concepts of competence. In those cases, the focus would often be on different forms of participation. If an article indicates in the abstract that it has to do with ‘participation difficulty’, then it is also comparatively more likely to apply a concept of participation understood as involvement.

Participation development is also significantly correlated with the three variables ‘participation understood as involvement’, as ‘influence’, and with the ‘feeling of participation’. Influence is moreover very significantly correlated with the feeling of participation (.471), i.e. the feeling of participation goes hand in hand with influence, whereas participation as mere presence does not promote a feeling of participation. The feeling of participation is positively correlated with development of participation, and perceived competence is negatively correlated with competence development.

As a curiosity it should also be mentioned that the capabilities approach (which is not indicated in fig. 11) is positively correlated with the development of participation. This might be interesting if searching for theoretical developments that seek to develop new concepts of participation, and linking a concept similar
to competence with participation (see for example Morris 2009). So, to sum up, we have three overall different kinds of texts here: 1) those regarding participation as ‘presence’, and 2) those emphasising ‘feeling of participation’, ‘involvement’, ‘influence’ and ‘development of participation’, which are statistically linked with each other, and 3) those concerning participation difficulties, which have to do with the (dis)ability to be involvement in various situations in life.

Aspects of competence and participation correlated

*Fig. 12 – Variables concerning concepts of competence correlated with variables concerning concepts of participation*

<table>
<thead>
<tr>
<th></th>
<th>Skills</th>
<th>Ability</th>
<th>Percei co</th>
<th>Co Contex</th>
<th>Capability</th>
<th>Co diffic</th>
<th>Comp dvlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence</td>
<td>.143 (.022)</td>
<td>.132 (.034)</td>
<td>-.295 (.000)</td>
<td>-.154 (.013)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involved</td>
<td>.173 (.005)</td>
<td>-.190 (.002)</td>
<td>.323 (.000)</td>
<td>.155 (.012)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel part</td>
<td>.129 (.038)</td>
<td>.132 (.033)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence</td>
<td></td>
<td>-.204 (.001)</td>
<td>.397 (.000)</td>
<td>.183 (.003)</td>
<td>-.173 (.005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part diffic</td>
<td>-.199 (.001)</td>
<td>.144 (.020)</td>
<td>-.142 (.022)</td>
<td>.608 (.000)</td>
<td>-.157 (.011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part devl</td>
<td></td>
<td>.218 (.000)</td>
<td>.193 (.002)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the various aspects of competence and participation are correlated with each other, we get the above measures of correlation. ‘Competence difficulty’ is negatively correlated with ‘Participation defined as influence’ (−.173, p 0.005). This might indicate that research on individuals who need care is less concerned with these individuals’ influence on the care. They are more likely to be the objects of care, rather than the subjects of decision-making. Moreover, ‘competence difficulty’ is, perhaps not surprisingly, highly significantly correlated with ‘participation difficulty’ (.608, p. 0.000).

The skill variable is positively correlated with ‘participation as presence’ (.143, p 0.022), but negatively correlated with participation difficulties (−.199, p 0.001). The variable ‘competence as ability’ is highly, significantly, and positively correlated with the variable ‘participation understood as involvement’ (.173, p 0.005), as well as with a ‘feeling of participation’ (.129, p 0.038). There is a tendency for these studies to emphasise the importance of involvement of children or young people in their own lives, emotionally as well as practically. ‘Ability’ is also correlated with participation difficulties (.144, p 0.020), as well as with competence difficulties (or disability). Perceived competence is positively correlated with participation as presence, but negatively associated with ‘involvement’, ‘influence’ and ‘participation difficulties’. Again, it should be emphasised that we are not talking about whether children or young people have a perception of their own competence when they have difficulties participating or when they are involved or have influence. We are merely indicating a conceptual tendency in the literature describing these issues.

Competence contextually defined is associated negatively with participation understood as mere presence, but positively linked with being involved, having a feeling of participation, with influence, and with development of forms of participation. Or rather, in such participatory processes, concepts of competence are more likely to be contextually defined. The variable capability is negatively correlated with participation as presence, but positively with participation understood as influence and with development of participation. This might be interesting if searching for theoretical developments that seek to develop new concepts of participation, and linking a concept similar to competence with participation. Not surprisingly,
perhaps, the variables competence and participation difficulties are highly and positively correlated, whereas competence difficulty (or disability) is negatively correlated with influence \((-0.173, p = 0.005)\). Competence development is positively linked with participation understood as involvement (involvement in life), but negatively linked with participation difficulties. If children or young people have difficulties with participating, the literature is less likely to apply a concept of competence development (or development of abilities), i.e. perhaps more concerned with means of compensation. The above correlations strengthen the three clusters identified above, and add new theoretical properties to them. Now we can characterise the three clusters in the following way:

1. Participation and competence difficulty, lack of involvement, having to do with (dis)ability, no competence development.

2. Participation means being present, non-contextual acquisition of skills as a consequence of participation, perceptions of competence.

3. Development of competence and forms of participation, contextually defined concepts of competence, capability, influence, feeling of participation, involvement.

**Various causal connections between competence and participation**

*Fig. 13 – Various causal connections between competence and participation correlated with various concepts of competence.*

<table>
<thead>
<tr>
<th></th>
<th>Com =&gt; pa</th>
<th>Pa =&gt; com</th>
<th>Co &lt;=&gt; pa</th>
<th>Co =&gt; pa</th>
<th>Prim com</th>
<th>Prim part</th>
<th>Co &amp; pa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill</td>
<td>-.160 (.010)</td>
<td>.152 (.014)</td>
<td>.122 (.049)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability</td>
<td></td>
<td></td>
<td>.156 (.012)</td>
<td>-.154 (.013)</td>
<td></td>
<td>-.170 (.006)</td>
<td></td>
</tr>
<tr>
<td>Perceived</td>
<td></td>
<td></td>
<td></td>
<td>.142 (.022)</td>
<td>-.199 (.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Context</td>
<td>-.256 (.000)</td>
<td>.451 (.000)</td>
<td>-.208 (.001)</td>
<td>-.155 (.013)</td>
<td>.191 (.002)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td></td>
<td>.204 (.001)</td>
<td>-.126 (.042)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp diffi</td>
<td>.283 (.000)</td>
<td></td>
<td>-.130 (.036)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp dvp</td>
<td>-.215 (.000)</td>
<td>.231 (.000)</td>
<td>-.156 (.012)</td>
<td>-.183 (.003)</td>
<td>.199 (.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence</td>
<td>.138 (.026)</td>
<td>.180 (.003)</td>
<td>-.311 (.000)</td>
<td>.155 (.012)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involved</td>
<td>-.144 (.020)</td>
<td>.307 (.000)</td>
<td>-.136 (.028)</td>
<td>-.332 (.000)</td>
<td>.202 (.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel part</td>
<td>-.138 (.026)</td>
<td>.261 (.000)</td>
<td>-.206 (.001)</td>
<td>.164 (.008)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence</td>
<td>-.175 (.003)</td>
<td>-.197 (.001)</td>
<td>.443 (.000)</td>
<td>-.240 (.000)</td>
<td>.144 (.020)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part diffi</td>
<td>.228 (.000)</td>
<td>-.155 (.013)</td>
<td></td>
<td>-.184 (.003)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part dvp</td>
<td>-.157 (.011)</td>
<td>.332 (.000)</td>
<td>-.125 (.044)</td>
<td>-.223 (.000)</td>
<td>.136 (.029)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the various concepts of competence and participation are correlated with the variables indicating either a causal connection, i.e. the direction of implication, or with the variables indicating the primary concern of the article, the above results occur. The variable competence difficulty is neither significantly associated with ‘primarily participation’, nor with ‘primarily competence’, nor ‘competence & participation’, meaning that the articles are not primarily about one of the concepts rather than the other. However, the variable ‘competence as difficulty’ is significantly \((p = 0.000)\) correlated with the variable ‘competence determines participation’ \((r = 0.283)\), which indicates that it is the inability to participate that explains the association. There is negative correlation \((r = -0.130)\) with the variable ‘bi-conditional competence
and participation’, which means that in these articles, competence and participation are a little less likely to be reciprocally connected (since ability determines participation). The skill variable is negatively correlated (-.160, p 0.01) with the variable ‘competence determines participation’, and positively correlated with ‘participation determines competence’ (.152, p 0.014), although the correlations do not explain a lot of the variation. Moreover, ‘competence as skill’ is significantly and positively correlated with ‘no connection between competence and participation’. This is presumably to do with the fact that ‘skills’ is sometimes one out of many variables that are measured in some studies, and that this variable is not theoretically linked with participation, for example if participation is another variable, but no association is reported, and no theoretical hypotheses made about a connection. The variable ‘competence as ability’ it is also positively correlated with both competence and participation difficulties (.144, p 0.020). It is negatively correlated with ‘concerning primarily participation’ (-.170, p 0.006), indicating that these studies are more likely to concern competence, or the combination of competence and participation (these variables are mutually exclusive). However small the association is, ability is positively and significantly correlated with the variable that indicates a two-way causal relationship between participation and competence (.156, p 0.012). It is likewise negatively correlated with the variable ‘no connection between participation and competence’ (-.154, p 0.013), indicating that studies making use of a concept with the meaning ‘ability’ have a tendency to connect the concepts participation and competence. This is not surprising, since ability is contextually defined in the literature. Whether a person is able to do something depends both on his or her physical and mental constitution, as well as on the situation he or she is in. A person may be bound to a wheelchair and be unable to play football or dance, but more than able to sing or use a computer. The ability of this person is defined among other factors by the social and material environment.

The variable ‘perceived competence’ is positively correlated with the variable ‘concerning primarily competence’ (.142, p 0.022), and, inversely, negatively correlated with the variable ‘concerning primarily participation’ (-.199, p 0.001). This indicates that when a study uses a concept of experienced, felt or perceived competences, it is more likely to concern the concept of competence more than the concept of participation (which is hardly surprising, since ‘perceived competence’ is one of the categories of competence defined above). Such studies are typically to do with whether children’s perceptions of their own competences influence their level of competence within various areas, for example physical skills, or social skills. In other words, these studies investigate if the ‘belief in oneself’ causes a child to become, for example, a better athlete or a better friend. Perceived competence is also sometimes related to family issues, because parents are sometimes asked to assess their children’s level of competence with regards to various issues (social skills, anger management, self-regulation, academic skills etc.). An article using a contextually defined concept of competence is likely also to concern both competence and participation (.191, p 0.002). In other words, it is difficult to understand a certain kind of behaviour as competent in relation to the environment, if the behaviour does not entail some kind of interaction with the environment. Interaction in this case is understood as participation. Here, it is more difficult to understand how a concept of competence can be defined contextually, and at the same time not entail participation. This is also indicated by the fact that competence contextually defined is correlated negatively with the variable ‘concerning primarily participation’ (-.155, p 0.013). It is also negatively correlated with ‘competence determines participation’ (-.256, p 0.000) and with ‘no connection between competence and participation’ (-.208, 0.001). Moreover, competence contextually defined is highly correlated and highly significantly so (.451, p 0.00), with the variable that indicates a reciprocal, two-way connection between
interesting, because one might suspect that participation, and less on the concept of competence between 'participation as influence' and the variable 'concerning both competence and participation'. The article concerning primarily competence (r .332), that the article does not concern primarily competence (p 0.000), and a chance (r .202) that the article concerns both participation and competence (p 0.001), which fits into the picture described above concerning a multifaceted theoretical field). This is supported by the fact that articles applying a definition of participation as involvement are not correlated with 'concerning primarily participation', which indicates that both the concept of competence and of participation are at stake when participation is defined as involvement. Furthermore, this is indicated by the positive correlation (r .307) between articles concerned with participation defined as involvement and articles implying a two-way causal mechanism between competence and participation (p 0.000), and that there is a negative correlation with both the 'no connection between competence and participation' (-.136, p 0.028), and the 'participation determines competence' variables (-.144, p 0.02). It is probably not surprising that a feeling of participation is significantly more associated with 'concerning primarily participation', rather than 'concerning primarily competence' (the latter showing a negative correlation). Articles that utilise a concept of participation implying a feeling of participation are more likely to portray a two-way connection between competence and participation (bi-conditional .261, p 0.000), rather than a one-way connection (portraying negative correlations).

Articles regarding 'participation defined as influence', including articles using a concept of participation that is explicitly contextual, are more likely to be primarily concerned with participation (.144, p 0.02) than with competence, demonstrating a negative correlation (-.240, p 0.00). Interestingly, there is no correlation between 'participation as influence' and the variable 'concerning both competence and participation'. The literature regarding children’s participation in decision-making processes, not just in the process, but also in debating the conditions or rules of this participation, focuses, not surprisingly, on the concept of participation, and less on the concept of competence (see for example Nugent 2006). This is indeed interesting, because one might suspect that certain vital competences are required in order to take part in
such processes. It might be that the articles presuppose the existence of competence (or ability) to participate, but that this is not explicitly mentioned in the abstracts, or that it is made explicit in the text, but not mentioned in the abstract. After all, data is based on a survey of the abstracts. It might be that the question of competence (skill, ability etc.) is implicit in the concept of participation within these types of literature? If this is so, then this finding would give weight to the conceptual framework of the BUK-senter, which aspires to make the connection between competence and participation explicit. When these texts mention participation (and not competences or related concepts explicitly) it might be because participation is typically defined as ‘involvement in one’s life’, and that this obviously requires (acquisition of) competence (see for example Cekaite 2007). If a concept of ‘influence’ is applied in the text, it is at the same time significantly and very likely to demonstrate a two-way connection between competence and participation (.443, p 0.000), rather than a one-way relationship, which is indicated by negative and significant correlations with ‘participation determines competence’ (-.197, p 0.001), and ‘competence determines participation’ (-.173, p 0.005). This shows that these texts do in fact very often implicitly articulate a reciprocal connection between competence and participation, only this is not necessarily explicitly indicated theoretically in the abstract, where the term participation seems to take a leading role as a descriptor. This picture is reinforced by the fact that if the article has a developmental perspective, focus is most likely on development of participation (.465, p 0.000) rather than development of competence, which is not significantly correlated with participation as influence.

Articles that use a concept of ‘participation difficulties’, or are otherwise concerned with this topic, are less likely to concern competence primarily (-.184, p 0.003). They are significantly more likely to imply a one-way connection between competence and participation (rather than a two-way connection, a non-connection, or the reverse connection). This means that the literature implies that if a child is disabled, then that child is less capable of participating (.228, p 0.000) and not the other way around, i.e. if a disabled child participates, how might that child improve his or her ability (-.155, p 0.013). There are exceptions to that in the literature, however, for example an article concerning children with autism, which is concerned about how to improve these children’s competences to participate in daily life, i.e. through the development of possibilities for participation (Reynolds et al. 2011, see also Hoogsteen and Woodgate 2010 on this general subject). This topic touches on a well-known discussion within the field of disability studies and special education that take an opposite position vis-à-vis the medical notions of deficit and impairment. The variable ‘participation difficulties’ is also negatively correlated with competence development (-.157, p 0.011), which furthermore strengthens the above interpretation. Moreover, and importantly, a further analysis of articles that concern participation difficulties might be able to pave the way for a better understanding of competence, since participation problems illustrate the competences/abilities/skills that are necessary to participate. Not just negatively (defined as a lack), but also positively understood as types and levels of competences and participation. Moreover, this perspective allows the analytical mind to see the reciprocal connection between competence and participation, even though the article itself does not define such a relationship.

The variables indicating a causal relationship between the concepts competence and participation, i.e. whether ‘competence determines participation’, whether ‘participation determines competence’, or whether there is a reciprocal conditioning (or a bi-conditional) relationship between competence and participation, or whether these two concepts are not connected, are mutually exclusive. They are therefore necessarily, mutually, negatively correlated with each other. Competence development is negatively
correlated with the variable competence determines participation (−.215, p 0.000). Moreover, there is a significant positive correlation between development of participation and the bi-conditional variable indicating a reciprocal connection between competence and participation (.332, p 0.000). The variables ‘competence development’ and ‘development of participation’ portray negative correlations with the variable ‘no connection between the concepts of competence and participation’ (competence ≠ participation). Interestingly, when participation determines competence, competence development demonstrates a positive correlation (.231, p 0.000), and development of participation a negative correlation (−.157, p 0.011). Both results are significant. This is perhaps not surprising, since studies investigating what happens when for example children participate in a particular after-school programme, or if their parents are involved in their school, then these children develop better academic skills, communication skills, or social skills. The outcome is likely to concern competences rather than participation itself, which in these types of research is conceived as the cause of success, rather than the effect of the educational efforts. Literature concerning ‘learning through participation’ (for example citizenship education, political education, health promotion, and education for sustainable development) articulates the importance of developing forms of participation (focusing on the process rather than just the outcome). Therefore, this type of research focuses on the reciprocal causal connection between participation and competence. In summary, we see the following causal connections between competence and participation, and their implications for the type of concepts regarding participation and competence:

1. Disability ⇔ participation difficulties (participation as presence)
2. Participation ⇔ skill development (primarily about competence, competence development, participation as presence)
3. Competence ⇔ participation (influence, involvement, context, ability, feeling of participation, primarily about participation, developing forms of participation)

**Age groups**

It is important to emphasise that we use the terms infants, pre-schoolers and school-aged children, but we refer solely to the age groups, and not to whether the particular children are pupils in a school. This may help to understand why there is a negative correlation between school-age children (6-12 yrs.) and competence development, when one might have expected a positive correlation. Infants are 0 yrs. – 23 months, pre-schoolers 2-5 yrs. Adolescents are 13-17 yrs.

*Fig. 14 – Age correlated with competence variables.*

<table>
<thead>
<tr>
<th></th>
<th>Skills</th>
<th>Ability</th>
<th>Perceived co</th>
<th>Context</th>
<th>Co difficulty</th>
<th>Comp dvlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants</td>
<td></td>
<td></td>
<td>-.161 (.009)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-school</td>
<td></td>
<td></td>
<td>.156 (.012)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School-age</td>
<td></td>
<td></td>
<td>.213 (.001)</td>
<td></td>
<td>-.186 (.003)</td>
<td></td>
</tr>
<tr>
<td>Adolescen</td>
<td>.165 (.008)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.173 (.005)</td>
</tr>
</tbody>
</table>
participation determines competence, there are no significant correlations, and those are with the age groups pre-schoolers (.181, p 0.003) and school aged children (.127, p 0.042). The age range ‘school-children’ is positively correlated with ‘competence determines participation’ (.124, p 0.045). When participation determines competence, there are no significant correlations with the various age variables (fig. 16). The bi-conditional (competence and participation reciprocally influence each other) is positively...
correlated with adolescents (.136, p 0.029), and there is a non-significant tendency that the younger the age group, the more negative the correlation. The opposite is true for the variable ‘non-connection’, since there is a significant and negative correlation with adolescents, but a non-significant, positive correlation with the younger age ranges.

There is a seemingly strange correlation in the literature concerning competence development (fig. 14). Development of competence shows a negative and significant correlation with the age group school-children (-.186, p 0.003), but a positive correlation with adolescents (.173, 0.005). Now, one must be cautious here: at first sight it might seem strange that competence development is negatively correlated with the age group ‘school children’, since competence development could be understood as a synonym for learning (and we might expect children to learn certain skills in school). The literature on for example school children and academic achievement only scored a positive value on the variable ‘competence development’ if the abstract explicitly mentioned this or related concepts (‘skill development’, development of ability etc.). Therefore, if an abstract implies that children learn something from a particular curriculum or teaching method, but not articulated as ‘competence development’, then it does not score a positive value on this variable. However, this does not mean that the article does not treat the issue of competence or skill development, only the terminology is different. Articles utilising a concept of for example ‘academic achievement’, or ‘performance’ were not necessarily labelled under the category of ‘competence development’, unless the focus of the abstract was a developmental process. The concept ‘academic achievement’ may share certain conceptual properties with the term ‘competence development’, and differ with regards to others. For example that there is a systematic development of something in both cases, that the development is successive and irreversible, and that the individual is capable of mastering certain aspects of his or her environment as a result of the acquisition of those skills or competences. The concepts may differ with regards to presupposing that the skills or competences are universal rather than contextual, and with regards to how the development or acquisition happens. If an abstract merely indicates a positive association between skills and participation in an educational programme, but does not explicitly conceptualise this as skills development or learning, then the article does not score a positive value on the ‘competence development’ variable.

Another plausible explanation could be that pupils do not receive grades until their teens, or that testing is intensified after the year of 12. This might be the reason why only adolescents are positively correlated with competence development, because tests and grades are used as a measure of educational success (i.e. competence development) in schools. If young children are not as easily tested as adolescents, then we are more likely to see articles reporting educational outcomes within that age range. It is simply easier to recruit a large number of respondents in testing situations if for example a study investigates the connection between leisure activities, or specific educational programmes or interventions, and development of academic skills. But the negative correlation might also indicate a weakness in the construction of the variables. First of all it shows that we have had certain specific characteristics in mind when utilising the concept of competence development, first of all that it appears as one of the primary focuses of the abstract. This is definitely something that must be analysed further in the qualitative analysis, i.e. whether and to what extent ‘academic achievement’ differs from or is identical to ‘competence development’ with respect to the age groups school-children and adolescents. It is surprising to see that these two age groups differ with regards to their positive and negative correlation with ‘competence development’. Another possible explanation is that research on school children is also
associated with variables that are negatively associated with competence development (health, medical, physical/sensory, motor issues, disability) and therefore these negative associations with competence development drag the tendency in the opposite direction. However, controlling for these variables that are negatively associated with competence development, but positively associated with school-aged children does not change the result. Also when one controls for adolescents and ‘social’, which are negatively correlated with school-aged children, the correlation remains negative. One possible explanation might be that where studies on school-children use expressions such as academic achievement and performance, research on adolescents cover a more ‘social’ or behavioural aspect of these young people’s lives. For example, literature dealing with teenagers is more often concerned with their ‘social interaction’ (for example drinking habits and sexual activity) than with their performance in (high-)school. Moreover, these studies are sometimes concerned with the transformation from the status of being a pupil to becoming a responsible moral and political citizen (with all the responsibilities and educational challenges this implies), and at other times with the development of participation, rather than with the development of competences. In short, the ‘teenage’ research focuses on ‘social issues’, and the investigation of school-aged children on performance and academic achievement. However, we will have to consult the literature in order to further characterise the concepts applied in these studies.

Young people appear to be a topic of investigation in itself, which corresponds with the interpretation presented above (and which is evident from the research subjects provided by the databases), that research in adolescents/teenagers/youth has a slightly different focus than research in school children, and in young children and infants. In line with the interpretation provided above, it seems that investigations of adolescents are more focused on social issues, such as behaviour, citizenship, political education, i.e. challenges concerned with becoming a citizen, including all the rights, concerns, privileges and obligations that it entails. The age groups are not mutually excluding. It is likely that an abstract has sometimes been granted a positive value on both the variable ‘infant’ and ‘pre-school’, but not on ‘school-age’, and another variable both on ‘pre-school’ and ‘school-aged’. Concerning age we see the following two overall tendencies:

1. Pre-schoolers & school age children (disability and participation difficulties, non-perceived competence)

2. Adolescents (skill development, competence development, contextual and reciprocal relation between competence and participation).

In conclusion one might say that the older the children /young people, the more multifaceted and multi-dimensional the concepts of competence and participation. The younger the children are, the more simple and one-dimensional the concepts.

**Concepts of competence correlated with education and subjects, disciplines or research areas**

In the following we are going to address the research field/subject/discipline variables (figures 17, 19, and 21) as well as the variables indicating the education status of an article (figures 18, 20, and 22). These variables will be correlated with the variables concerning competence, participation and the relation between competence and participation, respectively. These variables were introduced in the beginning of this report under the headline ‘Variables in the categorisation of the literature’ (page 11 in this report), but a short recapitulation will follow here.
The variable **Disability** covers articles concerned with either disability studies, studies of children with various forms of deficit, difficulty or impairment. They are often, but not necessarily, medical studies of how children with such deficiencies have difficulties partaking in various activities, and studies of how certain kinds of treatment, intervention or care might benefit these children. The next variable is **Health**, which covers studies focusing on for example medicine, health care, mental health, prevention, or health promotion. The variable **Phys/sens/motor** covers studies on children’s physical, sensory or motor functionings (skills or abilities), i.e. whether through participation in certain forms of activities or interventions these functions can be increased, and whether this increase leads to improvements in participation. A study for example investigates whether the sensory functionings of autistic children are correlated with competence and participation in these children. These three variables are positively correlated with each other. The next variable is **Sport**, which covers physical education, physical activity, games, and sport etc. There are many, particularly American, studies concerned with investigating a connection between participation in sport and the development of competence (self-esteem, perceived competence, social competence, academic skills etc.). The variable **Child development** registers the articles that have to do with either child or youth development, which is mainly covered by the research field developmental psychology, and the variable **Social** covers various kinds of fields, disciplines or research fields such as childhood sociology, child welfare, social welfare, citizenship education, political education, child protection, problematic teenage behaviours etc. The **Education** variable covers articles that deal with education in a broad sense, i.e. child-rearing, curriculum studies, academic achievement, Bildung. It is therefore also education in the sense that Rousseau and Dewey use the term. Curriculum studies and articles concerning academic skills and achievement will therefore appear in combination between the subject variable ‘education’ and the variable ‘formal education’. Health education also appears in this category. **Family** covers various subjects such as parental participation, mother-child relations, father-child relations, foster-children, maternity, parent’s influence on children’s competence development, parent-school collaboration etc. The variable **Professionals**, concerns the articles that focus on the competences professionals need to have in order to work with children or young people. These professions are for example professional caregivers such as health professionals, social workers etc. The **Leisure** variable concerns children or young people’s participation in leisure activities, extracurricular activities, play, after-school activities focussing on either the competence development occurring as a result of participation in these activities, or the abilities, competences or skills needed to participate.

**IT/Technology**, and **Children in research** did not yield any significant results (due to a small number of articles within each category), so they have not been reported in the following. Within the field of IT, media and technology the concept of literacy is widely used, and this concept was not used as a search term. The methodological research field focussing on children as either co-researchers or ethical issues concerning research on children did not provide enough hits to yield any significant correlations.

Moreover, the variables identifying whether the articles do, or do not, concern education, and furthermore if they concern education, whether the education status is formal, informal, or both formal and informal are covered by the following three variables **Non-education**, **Formal education** and **Informal education** (figures 18, 20 and 22).

The ‘competence difficulty’ variable (fig. 17) is highly correlated (.676) with the subject variable ‘disability, diagnosis, disorder, disease’ (p 0.000), which was to be expected, as well as it is correlated with the variable
‘health’ (.241, p 0.000). It is also correlated (.384) with ‘physical, sensory and motor functioning’ (p 0.000), which is perhaps not surprising either. Neither is it surprising to find a negative correlation with both the variable ‘social: citizenship, social welfare, child welfare’ (-.207, p 0.001), and the variable ‘education’ (-.267, p 0.000). This is all to be expected, given the way this variable was constructed, and given what has been said about the clusters above.

The skill variable is (fig. 17), not surprisingly, very significantly negatively correlated with the non-education variable (-.233, p 0.000), and very significantly positively correlated with both informal (.134, p 0.031) and formal education (.129, p 0.038). However, these variables do not explain a lot of the variation (.134 and .233), which is interesting (the term is most likely used in many different contexts other than education). If we look at the subject or area variables, then ‘skill’ is negatively correlated with ‘disorder, disability, disease, diagnosis’ (-.151, p 0.015) and with ‘sensory, motor and physical issues’ (-.154, p 0.013). Moreover, it is negatively correlated with health (-.114), but not significantly (p 0.065). Moreover, it is highly significantly, positively correlated with ‘education’ (.207, p 0.001). Why is the variable ‘competence as skill’ not more positively correlated with the various education variables (fig. 18)? Keep in mind that the variables concerning formal and informal education are not mutually exclusive. This is presumably because some of the articles appearing in the variables concerning education deliberately use other concepts than skills (for example capability or competence), and because the content of these concepts are explicitly used as a critique of the concept of skill. It is surprising, however, that it is not more positively correlated with the ‘formal education’ variable, since this variable is supposed to cover traditional curriculum studies and didactics, focusing on traditional academic skills (math skills, language skills etc.). However, many education studies are not only about traditional academic competences, but also about social issues, health issues, life-skills, communication skills etc. To put it differently, many studies within the field of education are not merely about teaching formal skills, i.e. the content of learning is differently defined and conceptualised within education studies.

**Fig. 17 – Field variables correlated with competence.**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Ability</th>
<th>Perceive</th>
<th>Contex co</th>
<th>Capability</th>
<th>Co diffic</th>
<th>Com dvlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>-.151 (.015)</td>
<td>.144 (.020)</td>
<td>-.147 (.018)</td>
<td>.676 (.000)</td>
<td>-.142 (.022)</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>.241 (.000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phys/sens</td>
<td>-.154 (.013)</td>
<td></td>
<td>-.265 (.000)</td>
<td>.384 (.000)</td>
<td>-.175 (.005)</td>
<td></td>
</tr>
<tr>
<td>Sport</td>
<td>.284 (.000)</td>
<td>-.143 (.021)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child dvlp</td>
<td></td>
<td>.132 (.033)</td>
<td></td>
<td></td>
<td>.190 (.002)</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>-.166 (.007)</td>
<td>.349 (.000)</td>
<td>.154 (.013)</td>
<td>-.207 (.001)</td>
<td>.125 (.044)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.207 (.001)</td>
<td>-.134 (.031)</td>
<td></td>
<td></td>
<td>-.267 (.000)</td>
<td>.245 (.000)</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.133 (.033)</td>
</tr>
<tr>
<td>Profession</td>
<td>-.154 (.013)</td>
<td>-.126 (.043)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fig. 18 – Education correlated with concepts of competence**

<table>
<thead>
<tr>
<th>Skills</th>
<th>Ability</th>
<th>Perceived co</th>
<th>Context</th>
<th>Co difficulty</th>
<th>Comp dvlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>.129 (.038)</td>
<td></td>
<td>.259 (.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal</td>
<td>.134 (.031)</td>
<td>.309 (.000)</td>
<td>-.214 (.001)</td>
<td>.206 (.001)</td>
<td></td>
</tr>
<tr>
<td>Non-Educat</td>
<td>-.233 (.000)</td>
<td>-.194 (.002)</td>
<td>.340 (.000)</td>
<td>-.289 (.000)</td>
<td></td>
</tr>
</tbody>
</table>
The variable ‘competence as ability’ (fig. 17) is, however, positively correlated with ‘disorder and disability’ (.144, p 0.02), but not correlated with the variable ‘health’, so it would be wrong to conclude that ability has to do with health care or medicine. The ability variable is negatively and significantly correlated with the subject of education (-.134, p 0.031), enforcing the interpretation that it is a concept that appears in disability studies (which is not necessarily labelled under medicine or health care). One way of interpreting this might be that the abilities to learn (through education) are not conceptualised, as education is typically understood as a way of producing social equality. The different prerequisites children and young people might have (in terms of abilities) are therefore not explicitly dealt with. The children or young people who appear within an educational programme are understood to have more or less the same abilities to learn (otherwise they would be in a special education programme). And if they are understood not to have the same abilities to learn, then this is visible from test scores, and therefore conceptualised as different outcomes of education. Moreover, ability is negatively correlated with the subject concerning professional competences (-.154, p 0.013). These studies use the concept of competence more often than ability (ability understood as the management of one’s life or situation, i.e. contextually, and not as a set of skills acquired through formal education or training). Competence, in this sense, also has the meaning of authority or legitimacy i.e. professionals are not just able to perform certain tasks well, but also competent in the sense of having the legitimacy to perform these services, for example the competence to make decisions.

The ‘perception of competence’ (fig. 17) is significantly, highly and positively correlated with sport and physical education (.284, p 0.000). This is often to do with the fact that studies within sport and physical education are concerned about, for example, gender differences with regards to the acquisition of athletic competences. Several studies report that boys are more likely to have confidence in their own physical skills and abilities, and they tend to believe in themselves when it comes to sport (Papaioannou et al. 2006). It is often indicated that belief in oneself is associated with good athletic skills, and vice versa, i.e. that participating in athletic activities increases one’s positive sense of oneself, belief in oneself. Perceived competence is moreover negatively correlated with the ‘social’ variable (citizenship, social and political issues, child welfare), and negatively correlated with professional competences (possibly because professional competences are conceived as objective, i.e. that one person can replace another based on the same objectively acquired qualifications).

Articles using a concept of competence, which indicates ‘competence difficulty’, are highly significantly (r .340, p 0.000) correlated with the variable ‘non-education’ (fig 18). Moreover, they are negatively correlated with both informal (-.214, p 0.001) and formal education (-.259, p 0.000).

The correlation between participation and competence in the articles that define competence contextually is furthermore strengthened by the negative correlation (-.194, p 0.002) with the subject variable ‘non-education’ (fig. 18). Interestingly, the contextually defined concept of competence is positively correlated with informal education (.309, p 0.00). It is negatively correlated with ‘disorder, disability, diagnosis, disease’ (-.147, p 0.018), with sport (-.143, p 0.021), and with physical, sensory and motor functioning (-.265, p 0.00). ‘Competence contextually defined’ is a concept that requires thoughts unbound by one-way causal connections. It requires thought that is multi-dimensional. Child development studies are positively correlated with the concept of competence contextually defined, although this variable does not explain much of the variation (.132, p 0.033). The ‘social’ variable (concerning citizenship, social welfare, child welfare, child protection, health promotion etc.) explains a considerable amount of the variation at a highly
significant level (.349, p 0.000), and the subject variable ‘IT, media, new technologies’ is also positively correlated (.148, p 0.017) with a concept of competence contextually defined. The reason why the ‘health’ variable is neither positively nor negatively associated with competence contextually defined might be that both medical articles as well as articles concerning health promotion are found within this variable. It is likely that health promotion drags in one direction, whereas the medical studies drag the tendency in the other direction. Moreover, the capabilities approach (consisting of only 11 articles) is positively correlated with the variable ‘social’. It might be surprising that the capabilities approach is only explicitly mentioned in 11 articles, given the theoretical potential of the approach to synthesise concepts of competence and participation. This is a finding in itself.

It is a complex picture drawn here (in fig. 17 and 18). All in all, it is important to say that the contextual concept of competence is associated with informal education rather than formal education. It is thus consonant with research literature that emphasises alternative learning environments over formal institutions, i.e. everyday life, and various other out-of-school learning contexts. Moreover, as mentioned above, the variable is associated with various understandings of participation that are also complex, among others because it implies a concept of influence, deliberation or decision-making. It means that the research field is highly complex, theoretically as well as in terms of different social interests and decision-making processes and criteria. Therefore, it draws a picture of a research area characterised by complexity as well as multi-dimensionality (including also the dimension of time, i.e. development) and multi-causal types of explanations, i.e. a highly challenging theoretical field. This might also explain why there are fewer unanimous correlations. The articles that define competence contextually fall within many different areas, and are usually cross-disciplinary. It is also clear that the variable ‘development of competence’ is weakly and negatively correlated with the variable ‘disorder, disease, disability, or diagnoses’ (-.142, 0.022 and -.170, 0.006). It is also weakly and negatively associated with ‘motor, sensory and physical’ (-.175, p 0.005), and demonstrates a positive but weak correlation with ‘child/adolescent development’ (.190, p 0.002). Moreover, the ‘social’ variable is positively associated with competence development (.125, p 0.044).

If we turn to towards the various concepts of participation and correlate those with the field/subject (fig. 19) and education (fig 20) variables, we get the following correlation matrices:

Fig. 19 – Field variables correlated with participation.

<table>
<thead>
<tr>
<th></th>
<th>Presence</th>
<th>Involved</th>
<th>Feel part</th>
<th>Influence</th>
<th>Pa difficulty</th>
<th>Part dvlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td></td>
<td></td>
<td></td>
<td>-.228 (.000)</td>
<td>.563 (.000)</td>
<td>-.170 (.006)</td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
<td>.202 (.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phys/sens</td>
<td></td>
<td>-.261 (.000)</td>
<td></td>
<td>.351 (.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport</td>
<td>.231 (.000)</td>
<td>-.220 (.000)</td>
<td></td>
<td>.183 (.003)</td>
<td>-.147 (.017)</td>
<td></td>
</tr>
<tr>
<td>Child dvlp</td>
<td></td>
<td>.182 (.003)</td>
<td></td>
<td>.341 (.000)</td>
<td></td>
<td>.399 (.000)</td>
</tr>
<tr>
<td>Social</td>
<td>-.223 (.000)</td>
<td></td>
<td></td>
<td>.184 (.003)</td>
<td>-.302 (.000)</td>
<td>.145 (.020)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td>.184 (.003)</td>
<td></td>
<td>.141 (.023)</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.141 (.023)</td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.141 (.023)</td>
</tr>
<tr>
<td>Leisure</td>
<td>.252 (.000)</td>
<td></td>
<td></td>
<td>-.167 (.007)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

42
Development of participation (fig. 19) is correlated positively and significantly with the ‘social’ variable, i.e. social welfare, citizenship education etc. (r = .399, p = 0.00). The reason why this variable demonstrates a correlation with the variable ‘social’ is that these texts are very often explicitly concerned with this issue, and not as often with the topic of competence development. Concerning the subject variable ‘education’, competence development shows a positive correlation of (r = .245, p = 0.00), whereas participation development only shows a positive correlation of (r = .175, p = 0.020). Interestingly, development of participation is negatively, but significantly, correlated with the family variable (-.141, p = 0.023). One might wonder why ‘family’ is not positively rather than negatively associated with development of participation. Moreover, in the literature the variable ‘professionals’ is negatively associated with the variable ‘competence development’ (-.134, p = 0.033). Regarding the subject, discipline or research area variables, the research fields associated with participation as presence are ‘sport and physical activity’ (r = .231, p = 0.00) and ‘leisure and after-school activities’ (r = .252, p = 0.00). This is perhaps not surprising since the literature within these fields often treat the question of how to increase ‘participation in leisure activities’ or ‘participation in after-school-programmes’. Participation as presence is negatively correlated with ‘social’, i.e. citizenship education, political education, social welfare, child protection (r = -.223, p = 0.00). This is not surprising either, since participation is a huge concern within these fields, and the research is often very concerned about defining participation as influence, rather than mere presence (Hart 1992).

Regarding the subject variables (fig. 19), involvement is negatively correlated with physical education and sports (r = -.220, p = 0.00), probably for the reasons described above, i.e. that these studies most often only indicate whether children participate in sport programmes in or after school, but do not very often elaborate on the kind or degree of participation. In contrast, involvement is positively correlated with the ‘social’ variable (citizenship, social welfare, child welfare). There are no significant correlations on the subject variables, which indicates that articles across a big disciplinary field are (or are not) concerned with the emotional or cognitive aspect of participation.

In figure 20 we see that ‘involvement’ is significantly and positively correlated with informal education (r = .178, p = 0.004). There is, then, a research area that opens up in the gap between non-education and formal education, where more elaborate concepts of participation flourish. Like involvement, ‘feeling of participation’ is positively correlated with informal education, but is neither positively correlated with non-education, nor with formal education. A similar picture emerges regarding participation understood as influence. ‘Influence’ is negatively and significantly associated with non-education (r = -.177, p = 0.004), and positively and significantly correlated with informal education (r = .286, p = 0.000). There is no significant correlation with formal education. This might also be due to the fact that informal education comprises a bigger group than formal education (since many texts that are to do with formal education also and at the same time concern informal education). Nevertheless, the picture is clear. If an article concerns participation understood as influence, it is also likely to concern informal education (which merely emphasises the educational aspect of participation). Furthermore, it is negatively and significantly

<table>
<thead>
<tr>
<th>Presence</th>
<th>Involved</th>
<th>Feel part</th>
<th>Influence</th>
<th>Pa difficulty</th>
<th>Part dvlp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td></td>
<td></td>
<td></td>
<td>-.263 (.000)</td>
<td></td>
</tr>
<tr>
<td>Informal</td>
<td>.178 (.004)</td>
<td>.142 (.022)</td>
<td>.286 (.000)</td>
<td>-.190 (.002)</td>
<td>.289 (.000)</td>
</tr>
<tr>
<td>Non-Educat</td>
<td></td>
<td></td>
<td></td>
<td>-.177 (.004)</td>
<td>.323 (.000)</td>
</tr>
</tbody>
</table>
associated with both disorder and disability, physical, sensory and motor issues, ‘leisure and after-school activities’, and with physical education and sports. In contrast to these negative associations, it is significantly and positively correlated with ‘citizenship, social welfare, child welfare’, ‘education’, and ‘professional competences’ (see figure 19). The variable ‘participation difficulties’ is furthermore positively correlated with the variable ‘non-education’ (.323, p 0.000), and negatively with both informal (-.190, p 0.002) and formal education (-.263, p 0.000) (fig. 20). This confirms the cluster analysis that identified three clusters, and not merely two. There is clearly a cluster that is not correlated with education, formal or informal, and at least two clusters associated with different kinds of education.

Regarding the subject variables (fig. 19) ‘disorder, diagnosis, disease, disability’ is highly, positively and significantly correlated with participation difficulties (.563, p 0.000). Moreover, the ‘health’ variable (.222, p 0.001) as well as the ‘physical, motor and sensory functioning’ (.351, p 0.000) are positively correlated with ‘participation difficulty’. ‘Physical education and sport’ show a negative correlation (-.147, p 017). At first glance this might not be so surprising, since children and young people generally have to be able to participate in order to do sport. But this variable in other cases (concerning involvement, influence, and feeling of participation) appear to be in the same cluster as disorder, health and physical skills. However, when abstracts apply a concept of participation difficulties, then there is a difference here, indicating perhaps that sport and physical education is more associated with a particular kind of relation between competence and participation (namely that participation leads to competence), and with the concept of skills. ‘Sport’ seems to constitute a group of its own. The other negative correlation concerns ‘education’ as subject (-.302, p 0.00).

Moreover, there is a remarkable similarity between development of competence and participation (fig. 18 and 20) when it comes to the kinds of education. Both variables are correlated negatively with non-education (r -.289 and r -.208), both with a strong significance (0.000 and 0.001), indicating that there is a bigger chance that this literature is to do with education. When we look at the types of education, both variables show a positive correlation (r .206, r .289) with informal education, also at a strong significant level (sig. 0.000 and 0.001). In accordance with what has been said above, none of the variables are correlated with formal education, either positively or negatively. In the following correlation matrices we will analyse the various relations between competence and participation by correlating these variables with the research field/subject variables and the education variables, respectively (fig. 21 and 22).

Fig. 21 – Field variables correlated with various causal connections between competence and participation.

<table>
<thead>
<tr>
<th></th>
<th>Co =&gt; pa</th>
<th>Pa =&gt; co</th>
<th>Co &lt;= pa</th>
<th>Co &gt;= pa</th>
<th>Prim com</th>
<th>Prim part</th>
<th>Co &amp; pa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>.247 (.000)</td>
<td>-.123 (.048)</td>
<td>-.145 (.019)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>.164 (.008)</td>
<td></td>
<td></td>
<td></td>
<td>-.148 (.017)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phys/sens</td>
<td>.295 (.000)</td>
<td></td>
<td></td>
<td>-.166 (.007)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport</td>
<td>.162 (.009)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child dvlp</td>
<td>-.133 (.032)</td>
<td>.327 (.000)</td>
<td>-.210 (.001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>-.308 (.000)</td>
<td>.155 (.012)</td>
<td>.143 (.021)</td>
<td></td>
<td>-.132 (.034)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>-.221 (.000)</td>
<td></td>
<td></td>
<td>.149 (.016)</td>
<td>-.122 (.050)</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>.129 (.037)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The connection between competence and participation is positively and significantly correlated with education (\(r = .155, p = 0.013\)). Subsequently, a significant correlation with the professionals' literature (\(r = .221, p = 0.000\)). Concerning the last competence, moreover, if there is a non-promotion, which is not the case if there is a one-way connection between participation and competence. Moreover, if there is a non-connection between competence and participation, there is subsequently a significant correlation with the professionals' literature (\(r = .221, p = 0.000\)). Concerning the last three subject variables, 'Leisure', 'IT' and 'children participating in research' there is only a positive and significant correlation between 'competence determines participation' and 'children participating in research' (\(r = .129, p = 0.037\)).

A very clear and unanimous relationship is seen when the variables concerning the causal relationship between competence and participation is associated with the education variables (fig. 22). Again, the three

<table>
<thead>
<tr>
<th></th>
<th>Co =&gt; pa</th>
<th>Pa =&gt; co</th>
<th>Co (\leftrightarrow) pa</th>
<th>Co &gt;(&lt;) pa</th>
<th>Prim com</th>
<th>Prim part</th>
<th>Co &amp; pa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>-.237 (.000)</td>
<td>.146 (.018)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal</td>
<td>-.239 (.000)</td>
<td>.155 (.013)</td>
<td>.153 (.014)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Educ</td>
<td>.334 (.000)</td>
<td>-.240 (.000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the correlations in figure 21 we see that literature concerning both 'competence & participation' is negatively and significantly correlated with the variable 'children participating in research' (\(r = -.122, p = 0.050\)) as well as with the health variable (\(r = -.148, p = 0.017\)). Literature concerning primarily participation is positively and significantly associated with 'children participating in research' (\(r = .149, p = 0.016\)), and negatively and significantly correlated with the family variable (\(r = -.132, p = 0.034\)). Moreover, these subject, discipline or research area variables also testify to the existence of the three clusters identified above (fig. 21). The variables 'disorder' (\(r = .247, p = 0.000\)), 'health' (\(r = .164, p = 0.008\)) and 'physical, sensory and motor issues' (\(r = .295, p = 0.000\)) are positively correlated with the variable indicating that competence (or ability) determines participation, probably due to the relatively high proportion of studies of disability, impairment and disease. The other variables, indicating a 'bi-conditional' relation between competence and participation, 'no connection', or that 'participation determines competence' portray negative (but mostly non-significant) associations with these variables. The 'bi-conditional' demonstrates a significant negative correlation with 'disorder' (\(r = .145, p = 0.019\)) and with 'physical, sensory and motor issues' (\(r = .166, p = 0.007\)). 'Health' is negatively, but not significantly, associated with this variable (probably because health promotion also appears in this category). When 'participation determines competence', there is a negative and significant association with the 'disorder/disability' variable, but a positive correlation with 'sport and physical education' (\(r = .162, p = 0.009\)). Furthermore, 'competence determines participation' is negatively and significantly associated with the 'social welfare, citizenship education' variable as well as with the 'education' variable (\(r = .308, p = 0.000\)). Again, the variable indicating a reciprocal connection between competence and participation is positively and significantly correlated with 'citizenship/social' (\(r = .327, p = 0.000\)), and with 'education' (\(r = .143, p = 0.021\)). The 'non-connection' variable is negatively correlated with 'citizenship/social' (\(r = -.210, p = 0.001\)), and the 'participation determines competence' variable is positively correlated with 'education' (\(r = .155, p = 0.012\)). The 'child or adolescent development' variable shows no significant correlations with these variables. Again the same picture appears. If competence (or ability) determines participation, then there is a negative association with education, and if participation determines competence (or skills), then there is a positive association with education. However, if there is a two-way causal relationship between competence and participation, the literature is a significantly more likely to concern both 'citizenship education, child welfare and social welfare' issues, which is not the case if there is a one-way connection between participation and competence. Moreover, if there is a non-connection between competence and participation, there is subsequently a significant correlation with the 'professionals' literature (\(r = .221, p = 0.000\)). Concerning the last three subject variables, 'Leisure', 'IT' and 'children participating in research' there is only a positive and significant correlation between 'competence determines participation' and 'children participating in research' (\(r = .129, p = 0.037\)).
clusters appear clearly. When competence determines participation, there is a strong, significant and positive correlation with ‘non-education’ (.334, p 0.000), whereas both formal and informal education are negatively associated with this variable (-.239 and -.237 respectively, both with a p-value of 0.000). If a person is unable to participate, or if certain competences are required for participation, then the study is less likely to concern education. If, on the other hand, participation determines competence, then there is a positive and significant correlation with both informal (.155, p 0.013) and formal education (.146, p 0.018). There is also a significant and negative correlation with ‘non-education’ (-.240, p 0.000), indicating that if participation leads to competence, then there is a higher chance that the study has to do with education than with non-education. Interestingly, but not surprisingly, studies that define a two-way, bi-conditional connection between competence and participation, show a significant (r .153, p 0.014) correlation with informal education. This is why three clusters are identified, rather than just two, because there is a difference between the kinds of connection between concepts of competence and participation that are applied within different kinds of educational paradigms (formal and informal). There seems to be an overall distinction between education and non-education, and the education variables are then further divided in formal and informal education. To sum up, the following three areas and their specific characteristics in using the three main concepts can be identified:

1. Disability, physical/sensory/motor, health, non-education, participation difficulties, ability

2. Sport, leisure activities and education, perceived competence, skill, presence in a programme leads to competence or skill development, formal and informal education.

3. Social, citizenship, social welfare, child welfare, professionals, health promotion, informal education, influence, feeling of participation, involvement, context, development of forms of participation, competence development.

**Summary of the statistical analyses**

The above correlations enable a more elaborate understanding of the three clusters identified in the beginning. The correlation analyses show that we have four different kinds of texts concerning competence: 1) those to do with ‘skills and competence development’, 2) with ‘ability, context, and competence difficulty’, 3) with ‘context, capabilities and competence development’, and 4) those concerned with ‘perceptions of competence’. Moreover, there are three overall different kinds of texts regarding participation. 1) Those regarding participation as ‘presence’, and 2) those emphasising ‘feeling of participation’, ‘involvement’, ‘influence’ and ‘development of participation’, which are statistically linked with each other, and 3) those to do with participation difficulties. This enables a conceptualisation of three areas within which the main concepts are defined and used differently. The three clusters can be characterised in the following way: First, if the article implies participation or competence difficulty, i.e. the disability to be involved in a life situation, then the article does not focus on competence development. Second, if participation means being present in a school class, on a team, in an activity or an educational programme, then the concept of competence is typically defined as skill and is not defined contextually. I.e. the skills are conceived as universally transferable to other contexts. In these articles there is also a slightly bigger chance that the research has focussed on children’s experiences or perceptions of their competences, i.e. they have for example been asked to state in a questionnaire their perceived competences before and after participation in an event. Third, if the articles apply a contextual concept of
competence, i.e. where the competences are not conceived as universal skills, but rather are defined in relation to a specific context, then focus is typically on the development of forms of participation or on competence development. Moreover, these articles are likely to imply also that children somehow have an influence on the structure or rules of participation, i.e. for example participation in decision-making processes. These texts also typically focus on children's and young peoples' feeling of participation is connected to the competence development as well as the types of competences developed. Moreover, these texts also focus not just on children and young peoples' ability to be involved in their lives, but also on their capability to be involved.

When we look at the causal connections between the main concepts, further depth is added to the analysis. We then see that various specific concepts are typically applied within these clusters. For example, when children or young people are unable to participate, or have difficulties participating, this phenomenon implies that the articles typically apply a concept of ability when these competences are described. The lack of ability to participate leads to participation difficulties and no development of competence. In those texts, participation is typically understood as mere presence. Second, if articles imply that participation in a specific practice (such as an educational programme, leisure activities or sport) leads to acquisition or development of skills then the focus of the text is typically on competence rather than participation. In these cases, participation also merely means presence (on a sports team, in an educational programme, or in some after school activity). Focus is typically not on the kinds of participation in these practices. Third, when competence and participation reciprocally and dynamically influence each other, then the abstracts typically and explicitly mention participation as the focus area, whereas the competences to participate do not typically constitute an explicit focus. It might be interesting to analyse how, within these studies, the competences to participate are conceptualised. These studies tend to imply that participation is understood as influence and involvement and that there is a focus on the feeling of participation. Moreover, that competence is likely to be contextually defined, and/or implying concerns about ability, capability and last but not least that these studies imply thoughts on the development of forms of participation.

Regarding the age ranges there is a tendency that the older the children / young people, the more multifaceted and multi-dimensional the concepts of competence and participation. The younger the children are, the more simple and one-dimensional the concepts. Moreover, feeling of participation, influence and perceived competences are negatively correlated with infants. Generally, the age ranges refer to two different types of studies. The age range 2-12 years are positively correlated with the subjects concerning disability, disease, disorder, and, subsequently, with participation difficulty. The more nuanced and complex concepts of competence and participation regarding skills development, competence development, contextual and reciprocal relations between competence and participation are associated with the age range 13-17 years. The fact that the age range adolescents (13-17 years) are positively correlated with skill or competence development, whereas the age-range school-age (5-12 years) is negatively correlated with competence development receive some discussion. This difference might be due to the fact that the more mature age group is tested more frequently, and that these tests provide a population large enough for quantitative investigations of the development of academic skills resulting from participation in various activities such as sport, leisure or educational programmes. This perhaps makes this age group particularly susceptible to investigations of skills development. Grades provide an easily accessible measure of skill development, whereas measuring competence in young children is
perhaps a more strenuous undertaking, because the criteria or standards of measuring competence development in these children are a contested topic (within developmental psychology, for example). There is an almost infinite range of criteria for measuring competence development. It is easier to measure academic skill development through tests, and these grades or scores can then be correlated with various other factors. Regardless of whether this is a simpler (and perhaps even misleading) measure of competence development it might explain why adolescents and not school-aged children are positively correlated with competence development. Another explanation might be that studies of teenagers often focus on behavioural and complex issues (social competence, life skills, self-regulation skills etc.), where the research is driven by a concern for these adolescents’ development (for example positive youth development).

Fig. 23 – Table portraying the subjects, disciplines or research areas, and their specific characteristics in using the three main concepts.

<table>
<thead>
<tr>
<th>Subjects or research areas</th>
<th>Positively correlated with:</th>
<th>Negatively correlated with:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability &amp; disorder and Sensory, motor &amp; physical</td>
<td>Ability ➔ participation</td>
<td>Participation ➔ Competence</td>
</tr>
<tr>
<td></td>
<td>Participation difficulty</td>
<td>- Competence ↔ participation</td>
</tr>
<tr>
<td></td>
<td>Competence difficulty</td>
<td>- Skill</td>
</tr>
<tr>
<td></td>
<td>Ability</td>
<td>- Competence contextually defined</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Competence development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Influence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participation development</td>
</tr>
<tr>
<td>Health</td>
<td>Ability ➔ participation</td>
<td>Participation difficulty</td>
</tr>
<tr>
<td></td>
<td>Competence difficulty</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participation difficulty</td>
<td></td>
</tr>
<tr>
<td>Physical education &amp; Sport and Leisure</td>
<td>Participation ➔ competence</td>
<td>Involvement</td>
</tr>
<tr>
<td></td>
<td>Participation as presence</td>
<td>- Influence</td>
</tr>
<tr>
<td></td>
<td>Perceived competence</td>
<td>- Participation difficulty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Competence contextually defined</td>
</tr>
<tr>
<td>Child or adolescent development</td>
<td>Competence contextually defined</td>
<td>Ability ➔ participation</td>
</tr>
<tr>
<td></td>
<td>Competence development</td>
<td>- Perceived competence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participation as presence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Competence difficulty</td>
</tr>
<tr>
<td>Social: citizenship education, child welfare, social welfare, sociology of childhood</td>
<td>Competence ↔ participation</td>
<td>Ability ➔ participation</td>
</tr>
<tr>
<td></td>
<td>Competence contextually defined</td>
<td>- Perceived competence</td>
</tr>
<tr>
<td></td>
<td>Capability approach</td>
<td>- Participation as presence</td>
</tr>
<tr>
<td></td>
<td>Competence development</td>
<td>- Competence difficulty</td>
</tr>
<tr>
<td></td>
<td>Involvement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participation development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Competence development</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>Competence ↔ participation</td>
<td>Ability ➔ participation</td>
</tr>
<tr>
<td></td>
<td>Participation ➔ skills</td>
<td>- Participation difficulty</td>
</tr>
<tr>
<td></td>
<td>Influence</td>
<td>- Ability</td>
</tr>
<tr>
<td></td>
<td>Participation development</td>
<td>- Competence difficulty</td>
</tr>
</tbody>
</table>

There is an overall tendency that these subjects, disciplines or research areas follow the same pattern that was disclosed in the cluster analysis and above, i.e. three overall clusters where the first has to do with
participation difficulties, disability, participation as presence, the second with development of skills through participation, and the third with a complex and reciprocal dynamic interplay between competence and participation. But the various areas each portray their own individual characteristics. For example, Education and Physical education share the property that participation leads to either skill acquisition or competence, but Education likewise share the property of competence development and a reciprocal dynamic interplay between competence and participation with the variable Social. Moreover, the variable Social shares the property of contextually defined concepts of competence with the research area Child or adolescent development, and the subjects Education and Social both concern the development of forms of participation. Therefore we see that the main concepts are scattered over the various disciplines, research areas or subjects in a more nuanced way than the cluster analysis demonstrates. These subjects therefore provide a good idea of which areas to investigate in the qualitative analysis if we want to find specific examples of the various definitions and uses of the main concepts. In the following the patterns that have been revealed in the above statistical analyses will be analysed in a qualitative analysis of a small sample of texts.

**In-depth conceptual analysis of children's and young people's participation and competence development**

**Focus of the qualitative, in-depth analysis**

The above quantitative representation of 260 abstracts (see appendix 1) has depicted several connections and relations, distinctions and associations which might be interesting to analyse more closely. However, this method implies that the clusters and patterns stamped out above are not necessarily ‘real entities’. They are statistically constructed objects, and do not necessarily correspond with a particular category of texts having the features indicated above. This means that if a specific category is recognised, for example a group of children with a specific age, with a specific use of the concepts competence and participation, and with a specific causal connection between these concepts, mostly appearing within two specific disciplines, this category does not exist because a specific groups of texts with these features exist. Statistically generated patterns do not necessarily correspond to individual objects. Or rather, the statistical pattern or order of objective features is not an up-scaled version of the micro orders that exist on an individual level. Statistical objects are products of variation in a population, and they demonstrate a unique order at a general macro-level. The statistical objects therefore exist sometimes only on a general level. Or rather, if these objects appear on an individual level, too, they appear differently.

For example, ‘lifestyle diseases’ is a statistically generated object. At the individual level we have blue toes, increased blood pressure, metabolic reactions etc. When such symptoms are correlated statistically with obesity, fast foods, inactivity, smoking and alcohol consumption, the statistically generated object is given the name ‘lifestyle disease’. A ‘lifestyle disease’, however, covers a wide variety of symptoms and forms of life, and when one takes a closer look at two individuals with a statistically defined lifestyle disease, one discovers that these two individuals do not necessarily share the same symptoms, nor have they necessarily made the same lifestyle choices. The same is the case with the individual texts in the literature search.

Another example is that competence development on a macro-level may appear to be a consequence of socialisation, indicating a one-way direction. From an individual level, however, individuals may perceive
things differently, and experience a double contingency between participation in a social context and development of competence. Therefore, the following qualitative, in-depth analysis of a comparatively small number of articles does not follow the exact same logic that was presented above. If we were to look for one specific article that represents each of the categories distinguished above, then we would not take the qualitative task seriously. We would merely be looking for a statistically generated object that does not necessarily appear with these exact qualities on an individual level.

This is the disadvantage of qualitative methods that it is easy to lose sight of the general picture. It is not possible to cover a broad surface and at the same time to go sufficiently in depth with the material. But it is at the same time the strength of qualitative analysis that what appeared to be a simple, one-dimensional connection now has the possibility to stand out as a complex, rich, and multifaceted phenomenon. It is indeed the strength of qualitative analysis that it allows the researcher to focus on detailed, multifaceted, qualitative aspects of the object of study, and that various new and complex relations stand out visibly, i.e. connections which in light of the new perspective have to be conceived differently. The object of study therefore not only appears in a different light given the application of a qualitative method, but changes because perceived from an individual, rather than a general point of view. Therefore, the qualitative perspective may shed new light on various contexts and connections of participation and competence development.

However, the qualitative analysis does not begin anew, but brings from the quantitative analysis above a number of specific perspectives that appeared particularly interesting. We take from the above statistical analysis the idea that the articles in the sample (260 texts) differ concerning their causal relation between participation and competence development. This is indicated by the pattern revealed in the cluster analysis. In the following we shall take the three different, overall causal connections as an overall leitmotif for the qualitative analysis. However, in the qualitative analysis we will see different patterns than we saw above in the quantitative analysis, because the categorisation was made on the basis of abstracts, whereas the qualitative analysis is based on a reading of the entire texts, which entails a more nuanced and complex understanding of the causal relation. What in the abstract seemed to be a one-dimensional and barely conceptualised relation may now stand out as a complex and dynamic relation between the main concepts.

Therefore, the overall focus of the qualitative analysis is on the relation between children and young people’s participation and competence development. In the following, these various relations will be indicated with arrows (\(\Rightarrow\), \(\Leftarrow\), \(\hookrightarrow\)). These three causal relations are of course poor representations of the many different kinds of relations found in the literature between participation and competence (development). A relation may be something that materialises and develops over time (gradual changes in participatory structures, or in competence development). In the following, this is indicated with the bi-conditional arrow (\(\Leftrightarrow\)). A description of the specific relation appearing in the article can be found in the analysis.

The categories of the qualitative analysis are partly drawn from the above statistical analysis, and partly drawn from the interpretation of the texts. This implies a gradually evolving style of analysis that does not present the categories in advance, but rather presents the categories as they appear in the course of the analysis, i.e. an immanent style of analysis. The categories are drawn from the texts by way of interpretation rather than imposed on the texts. The themes or subjects are thereby sometimes presented in the form of questions, the purpose of which is to generate reflection. The categories that appear as
results of the analysis were therefore not chosen in advance, but have been shaped through the analytical process itself. Some of the themes identified in the statistical analysis have been imported into the qualitative analysis, but have been changed as the method as well as the object of study changed. The three statistically generated clusters indicating three different associations between competence and participation have been selected as a starting point for the qualitative analysis. This perspective raises a fundamental question concerning whether children need certain abilities to participate, whether certain competences or skills are developed as a result of participation in a context, and how this relation is to be understood an conceptualised. Does the article for example suggest a reciprocal, dynamic and causal relation between participation and competence? How are we to understand the relation between these two essentially connected concepts? And which other concepts are invoked in the literature to understand the relation between competence and participation? This is the overall starting point and focus imported into the qualitative analysis from the above statistical analyses.

Six different chapters are presented below, each elaborating a specific aspect of the relation between the main concepts. First, the very causal connection is questioned. Do children participate because they have the abilities to participate, or do they develop the competences required because they participate? What is understood by participatory competence? And are there other mediating factor that may explain both participation and competence development in children? The first chapter thereby strikes a chord by raising this issue as a provisional, introductory dilemma. The second chapter concern the research field and subject of disability and participation difficulties, and how this issue is related to how we may investigate, conceptualise and understand children’s and young people’s participation and competence development. What may cases of disability teach us about specific requirements to participate? The third chapter below treats the question of how participation leads to competence or skills development. Are there levels or intensities of participation, and what do these different kinds of participation mean for children’s competence development? This is explicitly a question of education or learning, i.e. either formal education or informal learning processes. The focus of the chapter is on different activities (school or leisure activities) in which children participate and consequently develop competences or skills. Moreover, the relation between competence and participation also seems to concern the point of view assumed by the article, i.e. whether the study applies a general or macro-perspective on the relation between participation and competence development, or whether it focusses on the micro-workings of competence and development within a specific context. Attention is given to the concept of life skills, capability, and social competence. The fourth chapter concerns various aspects of the concept of competence. In this chapter, internal and external, personal and social aspects of competence are treated. Moreover, the specific subject of citizenship education and civic participation is analysed, and various aspects of the concept of competence needed for children to handle a flat and complex world are presented. The fifth chapter analyses dynamic and contextual relations between competence and participation. Here, we present not only the idea of competence development, but also development of forms of participation. Moreover, we analyse the concept of contextual competence, which indicates that competence must be understood in relation to multiple contexts, and not only one specific context. In addition to that, there is a development aspect of the relation between participation and competence, which entails a dynamic aspect concerning how changes appear in the two concepts as a result of a reciprocal, dynamic relation. The sixth and last chapter focusses on the capabilities approach as a conceptual framework for evaluating children’s participation,
and concerns the discussion of the various purposes of human life, in light of which various functions can be understood as competent.

The subjects or issues indicated above represent recurring questions or problems in the material. These issues can be understood, conceptualised and represented differently within different articles and disciplines, but they represent fundamental problems or questions that appear in the research literature concerning children and young people’s competence and participation. As such they pose questions for further research, reflection, and conceptual endeavours, as much as they provide answers to how these issues are understood or presented in the concrete articles analysed below.

The major point of departure in each of the analyses below is the relation between participation and competence. How are they conceptualised vis-à-vis each other? How are they defined, and how are they operationalized? The premise underlying this perspective is that the definitions and uses of these concepts appear when the different relations between these concepts become the unit of analysis. When causal connections become the focus of the analysis, consequently it becomes possible to speak of a logical order or structure in the material. However, as the following analysis will demonstrate, relations or links between the main concepts imply more than just a causal connection. It is primarily the third cluster from the cluster analysis above that lives up to this criterion, and therefore the sample of articles for qualitative analysis will mainly be selected from cluster three. However, we may also be able to find in cluster three examples of texts that also fall within cluster one or two (see figure 24). For example, cluster 1 has a high proportion of articles treating the issue of disabilities. But a text on disability may also display features of contextuality, development of forms of participation, and a reciprocal connection between participation and competence, and therefore also fall within cluster 3. The list below (fig. 24) presents the author(s) and the name of the article and the number(s) of the cluster(s) appear that this article is associated with appear in the column on the right hand side. In the qualitative analysis we use articles from both the searches on abstracts and titles. Below is a list of the articles that will be analysed in-depth.

*Fig. 24 – List of articles included in the qualitative, in-depth analysis, and indications of associations with clusters (C1, C2 or C3).*

<table>
<thead>
<tr>
<th>Articles included in the qualitative in-depth analysis (and indications of cluster associations)</th>
<th>Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Busseri et al. (2006). ‘A Longitudinal Examination of Breadth and Intensity of Youth Activity Involvement and Successful Development’</td>
<td>C3</td>
</tr>
</tbody>
</table>
Fong et al. (2011) ‘Motor ability and weight status are determinants of out-of-school activity participation for children with developmental coordination disorder’.


Howie, LaJeana et al. (2010). ‘Participation in Activities outside of School Hours in Relation to Problem Behavior and Social Skills in Middle Childhood’.


Lobman, Carrie (2011). ‘Democracy and Development: The role of Outside-of-Schools Experiences in Preparing Young People to be Active Citizens’.

Mahoney et al. (2003) ‘Promoting interpersonal competence and educational success through extracurricular activity Participation’.


Mueller et al. (2011). ‘Youth development program participation and intentional self-regulation skills: Contextual and individual bases of pathways to positive youth development’.

Pedersen, Sara; Seidman, Edward; Yoshikawa, Hirokazu; Rivera, Ann C.; Allen, LaRue; et al. ‘Contextual Competence: Multiple Manifestations Among Urban Adolescents’. American Journal of Community Psychology 35. 1-2 (Mar 2005): 65-82.

Penha-Lopes (2006) “‘To Cook to Sew to Be a Man”: The Socialization for Competence and Black Men’s Involvement in Housework’.

Reynolds et al. (2011) ‘A Pilot Study Examining Activity Participation, Sensory Responsiveness, and
1. How are competence and participation connected? Participatory competence

One of the major questions that are posed in various ways in most of the literature obtained from the literature search is the question of the causal relation between competence and participation. It is clear from most of the quantitative studies reviewed here that there is a correlation between children’s participation in various formal and informal learning environments, on the one hand, and the acquisition or development of skills, capability or competences on the other. The causal relation is sometimes taken for granted, for example in studies concerning physical education, where it is assumed that participation in sport promotes an acquisition of social or academic skills (Holt, Tink, Mandigo & Fox 2008). As the above mentioned study demonstrates, sometimes explicit attempts are made in the literature to assert whether certain abilities are required in order to participate, or whether participation promotes certain skills. How is this reciprocal connection to be understood? In studies that focus on children with disabilities this question is often articulated explicitly, since one of the central purposes of paediatrics and social work is to enable disabled children to participate. There is sometimes an explicit awareness in these studies that the connection between competence and participation cannot be understood as a one-way causal relationship.

Stacey Reynolds, Roxanna M. Bendixen, Tammi Lawrence and Shelly J. Lane (2011) study the connection between participation, sensory responsiveness and competence in children with high functioning Autism Spectrum Disorder (ASD). They describe the difference between types of activity of children with ASD compared to children without ASD, and measure the relation between sensory responsiveness, participation, and competence (see also Hochhauser & Engel-Yeger, 2010). Sensory sensitivity and sensory avoiding decreases all children’s motivation to participate and engage with the environment, and the result of non-participation is that competence is not developed. The article discusses the question about the relation of competence to participation. The competences considered in this study are operationalized as activities, social and school performance. This means that one of the measures of competence is whether children participate in ‘cleaning their plate after dinner’, ‘picking up their toys’, or ‘putting away their clothes’ (Reynolds et al. 2011: 1503). An important element in the concept of competence is therefore ‘self-care activities’, understood as involvement in the context of ordinary, everyday activities. The competences, therefore, are not merely understood as abstract ideals or commands about ‘honouring thy neighbour’ or ‘being a good friend’, but rather very concrete, everyday functionings such as dish-washing and personal hygiene.

There is a problematic aspect of this way of conceiving competences, because they are thereby operationalized as the behaviours parents favour. The demands defining what in a specific context counts as competence are not addressed. Competence is assessed using the Child Behaviour Checklist, which is completed by parents and caregivers who observe children in their natural environments. Parents were asked to answer questions related to the child’s participation in the areas of activities, social and school performance. Children with ASD participate less in household chores and other activities at home, and if
they participate they only do simple tasks, which is understood as tasks not involving the care of other living creatures. They tend, for example, to participate less in taking care of younger siblings or pets. The limited motor and social skills that prevent these children from participating, thereby also prevent them from developing these skills. This is an important discussion that questions the relation between competence and participation, and more fundamentally the relation between sensation, experience, and education. The activities, in which children with ASD participate, are different from the activities in which children without ASD are involved. This is due to limitations in social and motor skills. The authors ask whether autistic children are precluded from participating in certain activities because they have limited motor and social skills, or are they less likely to develop these skills because they do not participate. The authors ask whether these children would have been able to enhance their ‘participatory competence’ if they were given the opportunity to participate in activities that are challenging for them to handle (Reynolds et al. 2011: 1504)? In other words, is participation an effect of having the ability to participate, or do children develop competence (understood as skills) as a result of participation? Is the relation between competence and participation one-way, causal, deterministic, and if so, what is the cause and what is the effect? Or is it a two-way, bi-conditional relation? These are questions raised in this study. Their response is the following:

Children who seek out sensation may engage in activities more frequently or for a longer duration. By engaging, they may naturally get practice in performance of social, motor and sensory skills leading to increased competence over time. (Reynolds et al. 2011: 1504)

The study therefore demonstrates that sensory responsiveness is the cause of both participation and competence. The correlation of sensory responsiveness to participation and competence demonstrates that sensory responsiveness impairments influence the frequency and competence of all children to participate successfully in childhood activities. It is therefore not merely a result that has to do with children with autism. Therefore, the authors suggest that challenges in sensory responsiveness should be considered as part of an overall program designed to participation for children with ASD (Reynolds et al. 2011: 1504). The causal relation can therefore be portrayed thus:

Sensory responsiveness skills ⇐⇒ participation in life ⇐⇒ competence development

Impaired sensory functions decrease the motivation to participate, and therefore competence development. This finding supports White’s attempt to link competence to motivation (White 1959). Consequently, addressing sensory responsiveness is a means through which children with ASD could increase their ability to participate. The article concludes that ‘research should address the impacts that participation deficits have on the development of social, motor and sensory processing skills as the relationship is likely to be reciprocal’ (Reynolds et al. 2011: 1505). Sensory processing problems prevent participation, which in turn prevents competence development. Therefore, instead of recommending participation in order to increase competence development, this study directs attention to ‘participation deficits’, and recommends that improving sensory responsiveness may develop the ‘participatory competence’.

2. Disability and participation difficulties

Grantiana P. K. Leung, Chetwyn C. H. Chan, Raymond C. K. Chung, and Marco Y. C. Pang are the authors of a quantitative study where the determinants of activity and participation in pre-schoolers with
Developmental delay is a term describing significant delay in the achievement of developmental milestones in two or more domains (for example gross and fine motor proficiency, cognition, speech/language, and social skills). According to the World Health Organisation, disease or disability may lead to changes in in three different aspects, namely body functions and structures, activity (which is understood as the execution of a task or action by an individual), and participation (defined as involvement in a life situation). Other factors that may influence activity and participation are impairments in sensory, motor and mental functioning, and other contextual factors (for example family income). In the current study it was mainly activity performance and school participation that were in focus. Children with developmental delays were compared to an age matched group of typically developing children, to figure out what determines activity and participation levels of child development delay. The results of the study show a significantly lower level of activity and participation in children with developmental delays, and that motor proficiency is a significant determinant. The causal connection of competence and participation in this study could therefore be portrayed in the following way:

Disability $\Rightarrow$ non-participation $\Rightarrow$ (non-wellbeing)

The non-wellbeing aspect is in parentheses, because this is an implicit assumption in the study that participation is good for something else (wellbeing), but this connection is not studied or made explicit. The question that appears between the lines in this article is, “What is it about participation that leads to positive outcomes”? It is taken for granted, that children’s participation leads to physical, mental and social wellbeing, but the actual mechanisms in these activities seems to constitute a ‘black box’. This is one of the fundamental issues that this qualitative analysis will focus on.

Another article that reports this type of association between ability and participation is Shirley S. M. Fong, Velma Y. L. Lee, Nerita N. C. Chan, Rachel S. H. Chan, Wai-Kwong Chak, et al.’s ‘Motor ability and weight status are determinants of out-of-school activity participation for children with developmental coordination disorder’ (2011). This study reports that motor impairments determine lower levels of participation in out-of-school activities, which furthermore limits the acquisition of social, motor and academic skills. Therefore, initiatives that aim to enhance the ability of these children to participate are recommended. Moreover, the children were scored on a social problems score, which indicates that children with developmental delay have fewer friends, low self-confidence, and may feel more socially detached from their peers. Interestingly, Scharfstein et al. report that children with General Anxiety Disorder do not have peer problems, just fewer friends (2011), in order to counter the argument that these children are necessarily ‘socially impaired’ in all of their social relations, just because they have fewer friends. In other words, a person need not necessarily be less socially competent because this person has fewer friends, which again is an indication that, in the case of children with disabilities, it can be misleading to determine social competence by number of friends. This is another issue raised by these texts, i.e. how should children and young people’s competences be measured (more about this in the last chapter on capabilities and evaluation)?

Lindsey Hoogsteen and Roberta L. Woodgate in the article ‘Can I Play? A Concept Analysis of Participation in Children with Disabilities’ from 2010, study the ability of disabled children to participate in everyday life. The authors claim that children have to have a sense of inclusion, and control over the situation in which they are taking part. Because of their disability these children are at risk of restricted participation, which is
a challenge to the development of these children. The article is a review of various sources of literature, employing the search terms ‘children’, ‘disability’, and ‘participation’, and it portrays a number of cases, where various definitions of participation are elaborated. Through participation, meaning that children have to take part in something and with someone, children develop new skills, physical, emotional and social wellbeing, and better quality of life. Moreover, the authors develop a model case based on Walker and Avant, which portrays four different aspects of participation. The child:

(1) must take part in something or with someone,

(2) must feel included, or have a sense of inclusion in what they are partaking in.

(3) must have a choice or control over what they are taking part in, and

(4) must work towards obtaining a personal or socially meaningful goal or enhancing quality of life.

The authors identify ‘antecedents’ of participation, meaning the preconditions that must be fulfilled for participation to take place, in this case the antecedent being that the child must have an interest in something and a willingness to take part. Therefore, participation presupposes an interest in the matter, which is sometimes understood in various ways as motivation. Hoogsteen and Woodgate also describe the consequences of participation, which is that children with disabilities acquire new skills and competences, find meaning in life, increase wellbeing, develop social relationships, develop and refine skills, promote independence, make new friends, learn transferable skills, and formulates goals and values. This means there is a causal connection between ability, participation and competence which could be portrayed thus:

Ability & interest ⇒ participation ⇒ skill and competence development

The question is, however, how the relation between interest and participation/competence should be understood. Is interest (or motivation) the driving factor that explains participation and competence development, or is participation and competence development the cause of motivation/interest? This is the subject of Robert Whites article ‘Motivation reconsidered: The concept of Competence’ (White 1959: 318), in which he suggests that the concept of ‘competence motivation’ can explain infants’ and animal’s motivation to explore their environments. In Hoogsteen and Woodgate’s article, interest explains participation, which explains competence development. The opposite seems to be the case in Lekies and Marcia-Eames’ article concerning children’s interest in gardening (2007). They have investigated what fosters children’s interest in gardening, and find that gardening skills as well as participation in planning and managing activities is the cause of children’s interest in gardening activities. In this case interest is a consequence and not the antecedent of skills and participation.

Gardening skills + participation ⇒ interest in gardening

The concept of interest or motivation therefore seems to be intricately linked to the question of participation and competence development.

There are a few studies that do not focus on the deficit aspect of disabled children. These articles focus solely on the development of skills, functionings or competences as an outcome of certain special educational practices or programmes. The unspoken premise is that these children have a deficit or impairment with regards to specific abilities or functionings, but the abstracts focus only on the outcome of
caring for or teaching children with disabilities in specific ways and therefore do not focus on the disability aspect, but rather that a specific type of intervention, treatment, or educational programme promotes certain skills, functionings, competences or abilities better than other approaches. These articles therefore choose not to make the deficit aspect the primary concern, and they tend to focus on possibilities and see disability as a challenge rather than a deficit. Or rather, the focus of these articles is how to improve or develop disabled children’s quality of life, welfare and abilities. Participation in a special programme may then result in better skills, or better health or quality of life.

For example, A.D. Mandich, H.J. Polatajko and S. Rodger, in the article ‘Rites of passage: Understanding participation of children with developmental coordination disorder’ from 2003, found that ‘incompetence in everyday activities had serious negative effects for the children’. Moreover, ‘performance competency played an important role in being accepted by peers and being able “to be part of the group”‘ (Mandich et al. 2003: 583). This means that children with motor problems are restricted in participation, which influences health, self-esteem and social adjustment. This article therefore conceives the disability in terms of deficit: Although ‘[t]he motor deficits experienced by children with developmental coordination disorder are relatively mild compared to those experienced by children with neurological problems (...), nevertheless, DCD negatively impacts the child’s functioning and can have significant long term effects on academic, psycho-social and vocational outcomes’ (Mandich et al. 2003: 584). The authors present three themes that emerged from their qualitative investigation of parent’s reports concerning the impact of DCD on their children’s lives. Those themes are: (1) ‘consequences of the unimportant’, meaning that the performance problems of taking part in childhood, i.e. playing sports or playing with the other kids, to an outsider may seem trivial or unimportant in light of the fact that the children are competent in the essential development skills (walking, sitting, talking). The children’s difficulties are only visible in the context of everyday activities of childhood, and the parents are very aware of those difficulties. (2) The second theme that emerged was when these ordinary events became extraordinary, i.e. when the children feel stupid or left out, being teased or bullied. Even little exercises in school, such as standing on one foot and jumping, can be a huge problem for these children, and adds to their sense of failure. The authors moreover identify a third theme, (3) which is the ‘turning points’, i.e. when for example the children learn to ride a special bike, and thus prolongs his or her sphere of activity, and enhances a sense of independence (and participation). Once the children were able to participate in activities with their peers, it changed their lives. Mandich et al refer to Bandura’s sense of self-efficacy to account for the skill acquisition and persistence that self-efficacious children demonstrate.

However, once these children had developed certain forms of participation as well as the competences that allowed them to participate in everyday life, these children gained confidence and a sense of self-efficacy, which positively influenced their participation in childhood activities. Once they achieved a mastery of certain skills, they were able to gain control, master their goals, and develop motivation to participate more persistently in other activities. This changes the above formula slightly. In light of what has been said here, the development of a specific competence (such as riding a bike), makes it possible for these children to participate, and thereby further develop skills and mastery of the environment. It is not an antecedent, physical ability, but rather the development of competence, the mastery of a specific situation, that enables these children to participate:

Competence development ⇒ participation ⇒ self-efficacy ⇒ further skill acquisition
There is, then in this article a complex relationship between skill acquisition, participation and competence development, but the initial focus of the article is children’s disability, and then consequently the problems with participating in childhood activities. However, the article reports that once these children learn to master certain skills, they become more motivated, and more persistently so, to attempt in new activities, which consequently results in development of new skills. This circular process indicates competence development.

The above articles have raised a number of interesting questions. In what should children participate, in order to generate positive outcomes (competence development)? What qualities must participation have in order to generate positive outcomes? Moreover, how should competence be conceptualised and measured (Academic skills? Number of friends? Etc.). And perhaps most importantly, which competences or abilities must children possess already, in order to be able to participate? i.e. should competences be measured as an outcome of participation, or is it equally important to understand which competences, skills or abilities are required in order to participate effectively? These questions are demonstrated vividly in disability studies, and they moreover serve as guiding questions in the following analyses.

3. Participation leads to skill or competence development

a) Increasing degrees, qualities or levels of participation

The ability to participate does not have to be associated with disability, impairment or handicap. Foreign language children also need, not ability, perhaps, but certain ‘basic communication competencies’, in order to learn to speak a new language. Asta Cekaite, for example, in her article ‘A child’s development of Interactional Competence in a Swedish L2 Classroom’ mentions that foreign language children, in order to be able to participate in the school activities, and in talking to and playing with their peers, must know the ‘interactional architecture’ of ‘a specific discursive practice’. Such rules are for example turn-taking, linguistic resources (lexis and syntactic structures), topic introduction and maintenance, and the sequential organisation of talk (Cekaite 2007: 45). She remarks that ‘participation and the accomplishment of social action in particular communities of practice depend on a realm of tacit interactional competencies associated with recurrent social activities’ (Cekaite 2007: 46 - emphasis added). Development of language skills is, in this respect, linked to the assistance and ‘scaffolding’ of more experienced members of the discursive practice (cf. Vygotsky), and to participant observation. Interestingly, Cekaite depicts this learning process as depending essentially on tacit interactional competencies underlying the foreign language child’s participation in the language community. She has followed a second language child through three years in a Swedish school, and she describes how the child’s language skill acquisition developed through three consecutive steps. First, the child sought out dialogues with only one person (often the teacher), being in the periphery of the social context (drawing on Lave and Wenger’s ‘legitimate peripheral participation’). Interestingly, the article reports the foreign language child’s frustration that she felt in the beginning, i.e. her non-willingness to participate in the social activities in the new country. Later she would interact with more than one person, experimenting with words, not just with the formal rules of speaking, but also with how she spoke, i.e. she would gradually adapt to the norms of the social context, allowing her not just to follow the rules of the foreign language, but also to feel part, and to say the right things in the right way. Finally, she would enter the language community as a competent member, ‘mastering a more elaborate Swedish repertoire and interactional skills, allowing her to participate in spontaneously evolving whole-group conversational activities, which in turn shaped interactional learning affordances’ (Cekaite 2007: 58).
We therefore see interdependence between competence and participation, where first, participation required ‘tacit interactional competencies’, and at the same time, a gradual involvement in the language community enabled her to develop more elaborate language skills. In this case participation required tacit interactional competencies, as well as a gradual introduction to the language community facilitated by a more experienced member of the community.

Tacit competencies ⇔ developing a form of participation ⇔ further skill and competence development =⇒ further and improved participation

In other words, it is possible to distinguish between different levels of participation, having different qualities, degrees or intensities, i.e. a gradual involvement in various activities. Another example of this is seen in Vânia Penha-Lopes “To Cook, Sew, to Be a Man” (2006), in which the recollections of 45 black men are analysed in order to find out how through their childhood they became involved in household chores. This is termed ‘socialisation for competence’. Many of the informants report how they were gradually involved in these household chores either by fear of being disciplined or by encouragements to take responsibility for the family, by simply observing how it was done, and by trial and error. Some report that these chores were spoken of as masculine, military-like tasks, in order to encourage the boys to take part in the housework, which would otherwise be understood as typical female work. The way the connection between competence and participation is analysed in this article is based on the memories of adult black men about their childhood, and provides a good insight into the subtle mechanisms of how gradually increasing participation leads to competence development. The study investigates the concrete interplays of how early housework involvement provides ‘meaningful future references’, i.e. socialisation for competence. It is argued that socialisation does not imply a deterministic causal relation between childhood experiences and later behaviours, nor that children simply replicate the lives of their parents. But the childhood experiences are used to interpret later events in life, and used as sources from which to draw motives for later actions.

Early involvement in housework ⇔ socialisation for competence ⇔ adult participation in housework

Competence is operationalised as for example cooking skills, and it focusses on how these males have learned these skills, for example by trial and error, or by observation. Some informants report that they participated in housework because they feared the consequences of not participating, i.e. disciplinary actions. They also report that they were gradually involved in these household tasks as they grew older, and became capable of mastering these skills. The readers are provided a look into how everyday household skills are learned, through trial and error and through the fear of disciplinary actions. Furthermore, it reports that children learn to appreciate their abilities to work hard and see the results of housework, i.e. the independence and self-control they have achieved. An ability to work hard is and postpone immediate needs are appreciated by these men. It also shows that they use the same methods to involve their own children in housework. The study is interesting for methodological reasons, too, because it uses adults’ memories about childhood as data, which affects the validity of data because they are ‘distant’.

In the article ‘Is School Participation Good for Children? Associations with Health and Wellbeing’ (de Róiste, Kelly, Molcho, Gavin & Gabhainn 2012), children’s genuine participation in school democracy is investigated. In this study, participation is not understood as mere presence, but concerns the organisation
of school events, i.e. taking part in making school rules. In this study, the children’s competences are not addressed specifically, but their ability to speak for themselves is a key concern. Here, ability means ‘opportunity’ or ‘right’. Where de Roiste et al.’s article does not conceptualise these abilities, this is otherwise so in Venka Simovska’s article ‘The changing meanings of participation in school-based health education and health promotion: the participants’ voices’ from 2007, which conceptualises this as ‘action competence’ (Simovska 2007, see also Jensen & Schnack 2006), i.e. the capacity to act under various circumstances to promote the health of oneself and others. These texts generally express a need not merely to develop the competences to act or to participate, but also to the development of forms of participation that enable or enhance children’s participation, through which they may develop competence.

b) ‘Macro’ perspectives on the link between participation and competence

Most of the abstracts that identified a one-way causal link between participation and skill development use a simple concept of participation defined as mere presence. Some define participation as involvement in the current situation that eventually leads to the acquisition of skills. Some of these focus on out-of-school and leisure activity contexts. But many of them are found within an explicit education research context (physical education, school, curriculum studies etc.). However, the articles set within a school context do not necessarily fall within this category. In the following some of the articles that make use of a nuanced concept of participation will be examined, i.e. those that do not merely use the term to designate presence, but rather try to understand how participation leads to competence or skill development.

Articles that fall within this pattern are less likely to use concepts of competence and participation that are reciprocally connected (in terms of a dynamic, reciprocal relation), and are not associated with the variable indicating a causal connection going from ability to participation. Quite often the studies are quantitative, and the abstracts therefore indicate an ‘association’ between participation and skills. Therefore, it is sometimes unclear from the abstract whether this association is explained theoretically, and if so, whether it is explained in depth. It is also not necessarily clear what the type of causal connection is. But if, for example, in a study participation in leisure activities is correlated with better performance in school, this is taken as an indication of a one-way causal relation between participation and improvement of for example academic and social skills. The skill development resulting from participation in various contexts varies according to the context. The kind of skills to which the various studies reviewed here most often refer, range from social skills (communication skills, leadership skills), cognitive skills, life skills (self-care, self-efficacy, self-control, self-mastery), academic skills (math, language), athletic skills, motor, and physical skills.

Among the more subtle and multifaceted articles of this kind is Kay and Bradbury’s article ‘Youth sport Volunteering: developing social capital’ from 2009. In it they examine, in a mixed methods design, the impact of participation in structured sports volunteering programmes on personal and skill development, and on their commitment to community involvement. They use the concepts ‘social competence’ and ‘social capital’ (Coleman, Putnam, Bourdieu) to designate the outcome of participation in leisure activities, which is understood as social cohesion and connection. Youth sport volunteering develops a range of skills and personal competences, such as leadership skills, confidence, self-esteem, responsibility, organisational skills, communication skills, and motivation to do volunteer work etc. These skills and developments are interpreted all in all as ‘social competence’ and ‘social capital’. They conclude that there is ‘sufficient
evidence to show that for many young people, sports volunteering can ‘work’ as a mechanism for fostering human capital and encourage the practical and intellectual connectedness which underpins the idea social capital’. At the same time they warn against believing that this benefit is a constant condition – it needs constant development, constant maintenance. They further conclude that ‘the capacity of youth sports volunteering to engender social capital in its various forms is shaped by a range of personal and structural factors, not least of all, the capacity of individuals to possess and utilise the material and symbolic resources to access and negotiate those social networks through which social capital might be best realised (Kay & Bradbury 2009: 138). From a macro-perspective, participation promotes skill building, although the actual micro-process of skill development constitutes a multifaceted, dynamic and reciprocal process.

Participation (in sports volunteering) ⇒ development of social capital and social competence ⇒ further improved participation

A ‘macro-perspective’ on the relation between participation and competence development often implies a one-way causal relation. Growing up in an urban environment or a Scandinavian welfare state, for example, has certain implications for the skills or competence development. Moreover, these studies often investigate larger population based on smaller samples, i.e. a school class based on their test scores, or questionnaires measuring a large sample of children’s social competence, based on a few, supposedly clear indicators. Such studies typically portray the relation between participation and competence (development) as a simple, one-dimensional, causal relationship. Participation leads to competence development.

c) Participating in after-school activities:
Howie, Lukacs, Pastor, Reuben & Mendola (2010) in the article ‘Participation in Activities outside of School Hours in Relation to Problem Behavior and Social Skills in Middle Childhood’ reports a connection between participating in out-of-school activities (sports, clubs) and the development of social skills. The authors find no significant correlation between participation and problem behaviour. In other words, parents report the same level of bad behaviour regardless of the level of social skills of their children – they are brats even though they are good at social interaction. The quantitative study is based on parents’ reports. In this study, there is a one-way understanding of the connection between participation and social skills.

Participation in activities outside-of-school ⇒ development of social skills

The study does not critically question this relation, for example by hypothesising that children do not participate because they do not have social skills. Interestingly, this study not only operationalizes what is meant by ‘social skills’, but also makes explicit what is meant by ‘behaviour problems’. Behaviour problems are understood as sullenness, disobedience, bullying, and as ‘arguing with parents and teachers’ (Howie et al. 2010: 122). Social skills (sometimes also termed social competence), on the other hand, is conceptualised and operationalized as respect for teachers, neighbours and parents, getting along with peers, empathy and understanding other children’s feelings, and the ability to resolve a conflict. In other words, children who do not answer back, are obedient, and do not make trouble demonstrate social skills. The authors discuss the obvious limitations of basing these reports on parents’ reports, because parents may be unaware of the problem behaviours of their children outside of their direct observation, and could be over reporting socially desirable responses.
d) Participation in educational programmes: developing financial capability
Margaret S. Sherraden, Lisa Johnson, Baorong Guo and William Elliot III in the article ‘Financial Capability in Children: Effects of Participation in a School-Based Financial Education and Savings Program’ (2011), examine a four-year school based financial education and savings programme called “I can Save”. A quasi experimental approach is used to examine quantitative and qualitative data to analyse programme effects on financial knowledge. It is argued that the rising consumption among children and young people necessitates a focus on financial education, and the presence of a financial crisis underscores this need, as the perils of modern financial life become visible to everyone. It is understood, that poor financial capabilities may result in social degradation and health problems, especially in the United States, where health insurance is a private issue. It is argued that financial education will help prepare young people to make sound financial decisions in an increasingly complex economic environment (i.e. globalisation). The theoretical dilemma is how financial capability is best learned. The authors note that financial knowledge alone does not result in better financial decisions. Pleasure often prevails over good intentions. And financial capability requires not only knowledge of economic concepts, but also ability and opportunity to act on that knowledge. The question is how is financial capability best promoted in children? The study refers to evidence that children’s participation and an experiential learning method lead to financial capability (i.e. participation means “learning-by-doing”). The hypotheses that the authors mean to test are the following: 1) children participating in a financial education programme will gain more financial knowledge than children who do not, and 2) children who are in a programme with financial education and a savings account will learn more than children without a savings account.

The longitudinal study (five years) shows that children who were in the programme (from grade one to grade five) did not save more than children in the control group. The article discusses a few biases in the method, so it is difficult to say whether this result is due to the limitations of the study, or whether it proves that financial education does not promote the capacity to save money. Nor does the article discuss the relative value of saving money. The children enrolled in the programme were given one dollar every week, and the class made field trips to deposit money in the bank. However, the authors do not consider whether these children experienced it as worthwhile to save their monthly dollar. Saving money is only financially advisable if the saving allows the individual to get access to more pleasure later compared to the utility of spending the money here and now. If, for example, the extra dollar enabled these children to buy a better meal here and now in the school cantina, then it is a better idea not to save the money if the extra dollar provides them more pleasure here and now than they could get by saving the money. Saving money is only valuable if the total utility achieved by spending the money later is comparatively higher than the pleasure achieved by spending it here and now. In other words, the capability to save money is valuable only if one has goals in the future that can only be realised by accumulating money. The qualitative perceptions and experiences of the children who participated in the programme demonstrate that they understand the value of saving money ‘to go to college’, for example. But there would only be an incentive to save the one dollar every week if the children could imagine that what they would be able to buy for 260 dollars in five years represents a value that is bigger than the sum of all the slightly bigger meals they would be able to buy every week for five years. Another aspect of this study is that the long-term effect of the financial education is not revealed. Perhaps it would have been possible to see the effect of the study when the children have grown up, and savings become more important in their lives?
Importantly, the rationale of the financial education, and the concept of financial capability, must be seen in relation to the financial system in which the educational activities are situated. On the one hand, responsible financial behaviour is associated strongly with moderation, as this child says: ‘we learn not to get tempted’ (Sherraden et al. 2011: 393). Therefore, the aim of financial education is to institute modesty in children and the competence achieved is self-control. This might be explained by the fact that citizens in the United States have to provide access to social services such as education and health care on their own. Financial capability, therefore, is largely associated with an ability to save money for later spending. On the other hand, financial capability is defined as the knowledge, skills, confidence and opportunity to act in their own financial interest. If a citizen does not demonstrate a willingness to take chances, to take risks, the individual will perish on the highly competitive market that penetrates all parts of civil society in the USA. Financial capability, therefore, is about being able to take care of the self, i.e. about self-interest, and a successful outcome of the course is conceived as ‘self-efficacy’. The causal connection could be represented in the following way:

Participation in a school ‘savings programme’ + financial knowledge $\Rightarrow$ financial capability (self-control, self-efficacy) $\Rightarrow$ participation in society (increasingly complex economic environments)

It is striking that the financial education programme in which children in this study are enrolled does not mention exercises to practice social responsibility. There is a scale progressing from the individual, to the family, to community, and in the end to society as a whole. But the exercises constituting the financial education programme are motivated by self-interest, and situated at the level of the individual. The participating children do not learn to maximise the well-being of the class or the school. The article concludes that financial knowledge in combination with financial participation (i.e. having a savings account) leads to financial capability.

One of the problems with the above representations of the connections between participation and competence is that we see mostly reports on cases where participation has a positive outcome, i.e. where children or young people learn communication skills, acquire social capital, become more able to master their environments etc. The studies sometimes report obstacles that obscure such positive developments (frustration, non-willingness, non-interest, lack of motivation, disability, limited sensory responsiveness, sense of failure, low self-esteem). There is a risk, then, that children, who do not want to participate in the activities that are generally understood to be good for them, are interpreted in dominant discourses as ‘a danger to themselves’, ‘incompetent’, ‘in need of care’, or ‘at risk’. They thereby become stultified when they do not fit into dominant discourses of care, development, wellbeing or security. One might wonder whether the non-willingness to participate itself can lead to competence development.

4. Aspects of competence

a) internal/external and social/personal aspects of perceived competences

Ragnhildur Bjarnadottir reports a study of how Icelandic adolescents experience their own competences through participation in leisure activities. The article, like the BUK-programme, asserts that learning does not happen in schools only, and therefore the arena of leisure activities (not supervised by professionals, counsellors or coaches) has become an interesting arena to study. This is articulated as ‘informal learning’ environments. Even within school curricula this dimension is gradually articulated. Children and young people learn from and with each other in groups inside and outside of schools. Children become educated
through active learning, guided by teachers, other adults and peers, and their learning is influenced by society and culture (Bjarnadottir 2004: 300). We are thus introduced to a micro as well as a macro perspective concerning competence development. The article addresses both the leisure activity environment as well as how characteristics of late modernity are involved in the competences these adolescents describe. Four characteristics of competence are identified in figure 25: 1) doing/knowing – practical competence (being a technically good football player), 2) being – personal, emotional competence (self-control), 3) being together – social competence (giving positive feedback to others), and 4) reflecting – cognitive/social competence (understanding one’s role in a group). These four categories are placed in a four-cell matrix distinguishing between one dimension comprising an external level of competence (1 and 3) where behaviour is central, and an internal level (2 and 4), where inner work is central. The other dimension distinguishes between personal (1 and 2) and social competence (3 and 4). In other words, there are social and personal aspects of competence, and there are internal and external aspects of competence, respectively.

*Fig. 25 – Four characteristics of the concept of competence according to Bjarnadottir (2004).*

This means that the personal aspects of competence can be both internal (an ‘inner dynamic force’, referring to Ryan and Deci’s internal and external motivation, inward turning) and external (outward directed). Moreover, competences can be social and internal, and social and external. This model combines Ryan and Deci’s distinction between internal and external motivation with a concept of competence that distinguishes between personal and social competences. This provides us with a model that operates with four different concepts of competence. Interestingly, reflection is thus understood as a social, but inner aspect of competence. Reflection, in other words, is driven by social experiences, although it occurs within the reflecting subject. The point is that reflection presupposes shared experiences, and a ‘drive towards the environment’ to initiate the process. Contrary to reflection, emotional competence is understood as an ‘inner’ event (although it is difficult to understand why emotional competence is personal and reflection on the other hand is social – even as an analytical distinction). One might in fact argue that emotions (affects) are social in origin in the same way that reflection is. Nevertheless, we have the following causal connection:

Society and culture + leisure activity involvement $\Rightarrow$ four different kinds of perceived competence
It therefore seems that articles assuming a macro-perspective are more likely to focus on the one-way connection going from participation (in culture, society, leisure activities, sport programmes) to the development of social competences (ex. social capital). However, these studies also indicate that the micro-workings of the actual skill or competence development are more multifaceted, dynamic, complex and reciprocal than an overall, general portrayal of this connection can justify. The one-way causal connection between participation and competence/skill development is therefore connected to a general perspective (either in terms of macro-sociological theory, or to statistical generalisations).

b) Educating competent civic agents

Helen Haste in the article ‘What is “competence” and how should education incorporate new technology’s tools to generate “competent civic agents”’ from 2009, addresses the issue of civic participation and the competences needed in the twenty-first-century. First, she proposes a vision of the world that has become increasingly ‘flat’, meaning that there are less traditional boundaries in the world today. People no longer stick to their class, town, or geographical region. This changed premise requires new skills to perform in such a flat world. Haste particularly focusses on the roles of new technology in terms of how young people form new identities and develop competence, mainly through informal practices, because formal education has been slow or failed to incorporate the new tools in the classroom. Haste makes clear that she is not just talking about ‘keyboard skills’, but addresses the issue of civic participation from a perspective of a broader and multifaceted concept of competence. She bases the article on a theoretical framework mainly inspired by Vygotsky. Human beings are tool-users, meaning that we interact with our environment with tools, including everything from screwdrivers to metaphors. Human beings, thus, are agents actively trying to be effective in interaction with the world, including other people (Haste 2009: 212). Competence, in this setup, is understood as the ‘effective and adaptive tool-use’ (Haste 2009: 214). ‘Competence does not mean skills (although it may include skills); it means the capacity for adaptive responses and for appropriate interpretation of information’ (Haste 2009: 207). She singles out five competences that reflect different domains of tool-use and function, which are relevant within the context of civic education.

1) Managing ambiguity and uncertainty: Civic education that is effective in fostering this competence must have as its product the capacity to manage diversity, ambiguity and uncertainty, essential for being able to engage in democracy and social progress. Deliberative democracy is an example of a practice that requires managing not just the dialogical process, but also the ability to adjust one’s own perspective in argumentation. Haste mentions that a high proportion of young people are skilled and active in social networking and managing complex interpersonal dialogue (Facebook etc.), but ‘we do not yet know fully how to capitalise on this in education’ (Haste 2009: 215).

2) Managing technological change: Designers of new technological tools do not always know how their inventions are being used in social practices. Text messaging, for example, was not intended as a new form of communication, which it later became. This competence, therefore, is not meant as mere ‘keyboard skills’ or more elaborate skills like managing interfaces, although these skills may be necessary components of the competence. The competence, rather, ‘lies in adaptive responses to the new technology’s options and particularly their impact on social practice’ (Haste 2009: 215). Technological competence changes the way different social groups become involved in new areas, from which they were earlier excluded. For example, women have become more involved in banking and financial decisions because of new technological skills associated with online banking and shopping. ‘Competence, here, lies in being open to
exploring the potential of new technology, and adapting to this’ (Haste 2009: 216). Her aim is to rethink aspects of the structure of education to capitalise on new technologies.

3) Agency and responsibility: This competence is central to civic as well as moral education and to life skills in general. It ‘relates to adaptation to novel situations and the willingness to recognise that a problem imposes on oneself the obligation to cope or solve it. The educational challenge is to provide experiences which affirm an identity of agency, a normative assumption of coping, and provide the skills needed to exercise the competence, through experience or through direct tuition. Youth organisations, for example, teach first aid, which are not just a practical set of skills, but also an expectation that, in a crisis, this person will exercise those skills in what might be a quite stressful situation. And within the world of IT skills, young people who organise gaming events may also, thereby, learn to apply these organisational skills in the real world. Moreover, social networking might translate to social or political action. ‘In addressing education for civic participation, we must focus on the tools which engage and empower. Individuals require tools which give them efficacy, and they also require tools which enable them to frame their understanding of the personal and social world in ways that give meaning and sense to their civic and moral engagement’ (Haste 2009: 217).

4) Finding and sustaining community: Furthermore, there is a need to build and sustain interpersonal networks that serve not just one’s own personal needs but also those of a wider community. ‘The implications for education are primarily in making effective use of these skills to enhance civic awareness, especially by building on them for making links to other communities’ (Haste 2009: 218). This competence includes competence in bridging social groups with different agendas, including those with whom we want to be friendly. In other words, Haste emphasises the need to develop and sustain the communities in which children participate. As is seen in this example, Haste does not reserve for the term ‘competence’ a single conceptual level. An overall competence may include other competences.

5) Managing emotion: Last, the final competence ‘managing emotion’ is not about control, which is merely one discourse around it. Rather, ‘it is about reflecting upon the ways in which one incorporates the cultural messages about emotion, and how these validate, and de-legitimise, different kinds of experience. Emotion is understood to be the engine that motivates. In terms of civic education, emotions motivate to engage in political action activities (environmental movements). The danger is that extremism is also fuelled by emotions. Haste point is that suppressing emotions is not the way to deal with extremism.

Schools will need to find ways of orchestrating those often bottom-up, often collaborative practices productively. She argues that we need systems that support working collaboratively and interactively, with distributed knowledge management as the objective. Hastes article is an example of a concept of competence that is not just one concept, but a set of competences that interlink with social and educational theories more broadly, and that are mobilised in various social practices, for example the arena of what she calls ‘civic participation’. There is not one core concept, but a variety of competences that must be understood on the background of participation in various and interlinked (educational and societal) contexts.

Within this type of texts, addressing particularly young people’s competences or abilities to participate in life and society (political competence, civic participation, deliberative competence, decision-making competences etc.), there is often a special attention, not just to how these participatory competences are
developed, but also to how various forms of participation could be developed (or enhanced). These studies focus for example on decision-making processes and young people’s influence on the rules of school participation, and quite often also on health and wellbeing (Carlson & Earls 2011). Carrie Lobman (2011), as a curiosity, argue that schools have historically been the primary institution responsible for preparing young people for participation in a democratic society, thereby framing the relation between education and democracy. But Lobman attempts to redirect focus away from education to the more general question of “development and democracy”, i.e. how do young people acquire democratic competences in outside of school contexts. She thereby frames youth development as a dialectical, social, and creative activity, and argues that it is necessary to develop such environments that support the democratization of society. In other words, she focuses on developing forms of participation outside of schools in order to promote this kind of development.

5. Dynamic and contextual relations between competence and participation.

a) Development of new forms of participation

One of the interesting questions that appear is the kind of concepts of competence and participation that are associated with the complex, dynamic interplays between participation and competence development. First of all, it seems that it is not just any kind of concept of competence that appears within this field. Concepts such as social competence or civic competence (Hart & Atkins 2002) are more likely to be associated with a complex, reciprocal relation between competence and participation. Moreover, social skills and life skills often have complex implications, although the concept of ‘skill’ could be understood to be one aspect among others of competence (which may also include knowledge and attitudes). Further examples of this complex, dynamic relation are concepts such as interactional competence (Cekaite 2007) or interpersonal competence (Mahoney, Cairns & Farmer 2003). In the realm of articles concerning participation it is mostly concepts such as ‘civic participation’ (Haste 2009) and ‘learning through participation’ which indicate a complex relationship between the two concepts. For example, articles articulating ‘intensity’ or ‘breadth of involvement’ (Busseri et al. 2006) tend to operate with more complex notions of participation, which are connected to skill acquisition or competence development. Generally, articles that concern development of competence or participation are found within the areas of ‘leisure’, ‘after-school or extracurricular activities’, ‘informal education’, ‘child or youth development psychology’, ‘citizenship education’ ‘child protection and social welfare’ and, apparently, ‘disability studies’ (for the reasons given above). Moreover, the development aspect is mostly seen in cases of adolescents (Fredricks & Eccles 2006).

In terms of learning theories, the complex, dynamic relation between participation and competence is found within cooperative or experiential learning, empowerment, socialisation etc. Moreover, concepts of situated learning, informal learning and learning through participation may also be included on this list. Within the realm of education there are a number of fields within which we see complex dynamic relations between competence and participation, examples of which are citizenship education, political education, education for sustainable development, health education (Simovska 2007), extracurricular activities, parent-school relations, special education, and school social work.

However, what is meant by ‘complex, reciprocal, dynamic, and contextual’ concepts of competence or participation? One of the things that constitute complexity is the development aspect. Some articles
highlight that making a habit out of things, routinizing these tasks so they become manageable, is a way of conceptualising competence. The need to routinize certain functions and actions testifies to the complexity of the task, and the context which provides it with meaning. Moreover, the aim of certain articles in which competences are explicitly contextually defined is not only to further develop these competences, or to analyse how these competences can be transferred to other contexts, but also to develop new forms of participation. The conceptualisations of the main concepts in these articles are therefore complex and nuanced, and quite often it is necessary to consider a specific concept, such as competence development, or competence contextually defined, in relation to other concepts, with which these concepts are intrinsically linked. The following article provides an example. Shelley Goldman and Angela Booker in the article ‘Making Math a Definition of the Family: Families as Sites for Mathematical Practices’ from 2009 investigate how families do math in everyday life, with the purpose of improving math learning interactions between school and home. Although this article explicitly concerns ‘family involvement’ and ‘family competences’, and therefore also parents competences and parental participation, this object of study also necessarily involves children’s participation and competences. An explicit purpose of the article is therefore to ‘invite new forms of participation that bring families into discussions of math-relevant situations and relates them to their children’s school math’ (Goldman & Booker 2009: 369). The article explicitly aims to do away with the idea that schools are the only sites for learning math, since ‘when we distinguish between school math and family math, we are speaking of a difference in problem context and participatory structures’ (Goldman & Booker 2009: 369). It is commonly recognised that ‘family involvement drives school achievement’, but that parents often ‘leave math to the schools as their children rise through the grades and move beyond arithmetic’ (Goldman & Booker 2009: 369). However, family activities are rich in discourses and practices that actually instantiate a great many math relevant practices. We learned daily life provides many contexts for mathematical problem solving, that parents generally grapple with the problems they encounter productively and often to their satisfaction (...) all while rarely identifying what they do as “math”’ (Goldman & Booker 2009: 369). The concept of ‘math skills’ is applied in the article, we are told explicitly that these skills change when the context changes. Daily life exposes families to a different kind of problems compared with the problems that children encounter in a school context, and therefore the skills demonstrated in the context of daily math problem solving differ from the math skills applied to solve school math problems. Moreover, and importantly, the families rarely conceive of what they do as ‘math’ even though they apply formulas and procedures which are generally defined as mathematical. The families saw only ‘common sense’ and necessity, for example in shopping within a limited budget (Goldman & Booker 2009: 380). The math skills applied in daily life are defined in the following way:

*Family members set goals, plan, create budgets, and do forecasting and reconciling of budgets and expenses. They make decisions after weighing all of the variables, dabble in statistics, and optimize. They think conceptually and logically, demonstrate flexibility and adaptability, search for patterns and discrepancies, develop strategies, use approximation, estimation, and make decisions based on priorities, multiple conditions, and variables. (Goldman & Booker 2009: 383)*

The quote shows that math skills are abstracted and generalised principles from everyday practices and problem solving (which is generally the case for scientific methods that they are extracted from practice, cf. Heidegger). This is also why the family members do not understand what they are doing as “math”, because these problem solving methods and strategies are part of their daily routines. It also means that
skills are conceptualised and operationalized as ‘problem-solving’ strategies. Furthermore, this is why Goldman and Booker state that the ‘contexts families engage in define their needs to problem solve and also make accessible and ready the resources needed for getting to solutions’ (Goldman & Booker 2009: 383). This means that the skills needed are determined by the demands and properties of the context, and of the tools at hand. Moreover, when given a school math problem, similar to those successfully solved in daily life, many children are not as successful (Goldman & Booker 2009: 370). The authors report three cases of family problem solving. These include a family where the teenage daughter is attending a prom, and because of a limited budget has to make a budget, do calculations and estimations of how much money she can spend on a dress, hair, nails, the ticket to the entrance, and whether she prefers a less expensive dress so she can afford to rent a limo. Another example is a family that spends much time on public transportation and therefore has to calculate which busses to take in order to save time on transportation. This exercise furthermore included weighing different criteria, because the family members had different priorities. One of the children in the family wanted to get off the bus as close to the school as possible, another child prioritised the fastest possible route, whereas the teenage daughter wanted to avoid bus connections in areas with gang activity. The family therefore had to calculate the best possible route, weighing the various criteria, using a map of the city and a bus schedule. The article concludes that it is necessary to return to work with families to push a “math in the family agenda” even further (Goldman & Booker 2009: 385). When the family is recognised as a unique and legitmate cultural site for math learning, by parents and educators alike: One is an increase of schools’ respect for families as a unique mathematical context, and second, the rich context for mathematical work, created and supported in the daily lives of the families, can be intentionally be put to work by parents in support of their children’s learning. This article is an example of how different contexts foster, demand, and alter various math problem solving competences. Moreover, it is an example of how not only skills are developed, but in order to better develop skills, there is a need to develop new forms of participation, in this case the family as a context for participation in problem solving.

b) Contextual competence and multiple contexts
The article ‘Contextual Competence: Multiple Manifestations Among Urban Adolescents’ from 2005, written by Sara Pedersen, Edward Seidman, Hirokazu Yoshikawa, Ann C. Rivera, Larue Allen, and J. Lawrence Aber, presents a concept of competence which is explicitly contextual, and is based on an understanding that adolescents’ competence development is not only contextual, but also multi-contextual. ‘Competence unfolds in the daily transactions with the multiple social contexts in which youth are engaged’ (Pedersen et al. 2005: 66). It is argued that historically, research on mental health and illness has been driven by a deficit model, and has focussed on prevention rather than a more positive approach to psychological wellbeing and development. It is argued that focus should be on the promotion of positive adaptation, or competence development, through interventions targeted at the social contexts in which individuals engage. One of the criteria of positive psychology (Jahoda) is the environmental mastery criterion, which acknowledges the influence of social context on individual development (Pedersen et al. 2005. 65). This focus, it is argued, is still focused on the individual, whereas Pedersen et al. recognise that people and experiences are embedded in a social context. ‘We believe that competence or positive functioning cannot be ascertained by simply examining person-centred characteristics. Competence unfolds in the daily transactions with the multiple social contexts in which youth are engaged’ (Pedersen et al. 2005: 65-66). The authors have therefore ‘chosen to emphasise the setting-dependant nature of competence by introducing the construct “contextual competence”’ (Pedersen et al. 2005: 66).
We explicitly define contextual competence with reference to the resources available to youth in different settings. Such a definition is consistent with prior work on adolescent competence development. For example, Masten and Coatsworth (1998) suggest that competence is results from the “complex interactions between a child and his or her environment” (p. 206) and propose that the outward signs of competence change not only as the context changes but also as the individual progresses through childhood and adolescence. (Pedersen et al. 2005: 66)

From this quote it is clear that contextual competence is therefore not defined at all, because a definition is always and necessarily dependent on the specific context in which this competence is exercised. It would be a contradiction in terms to provide an abstract definition of a contextual concept of competence. However, Pedersen et al. attempt to uncover different patterns of contextual competence in a sample of low income, urban adolescents. According to the authors, transactions within a specific setting are not the only important predictors of development. The number of settings engaged is also affects his or her well-being (Pedersen et al. 2005: 66). Engagement in ‘multiple arenas of comfort’ is expected to lead to the most positive developmental outcomes, because success in one arena may buffer the negative effects of failure in another (Pedersen et al. 2005: 66).

Therefore, to truly grasp the multi-dimensional meaning of a person’s competence, one must examine the “package” of their different relations to their proximal social contexts. (Pedersen et al. 2005: 66)

The authors investigate in a statistical sample of 560 urban adolescents drawn from the Adolescent Pathways Project holistic patterns of adolescent contextual competence within six different domains. These are 1) peer groups, 2) school, 3) athletics, 4) religion, 5) work, and 6) culture. An adolescent’s level of engagement and quality of performance within these domains will reflect competence and predict developmental outcomes associated with competence (Pedersen et al. 2005: 67). Positive development is understood as self-esteem, as well as a small risk of depression and delinquency. The involvement and quality of involvement in peer contexts was measured by ranging the responses to a number of questions such as: “I feel really close to my [closest similar age friend]”, and “I share my secret thoughts and feelings with my best friend”. Moreover, the empowerment measure of the peer context was operationalized with questions like: “They respect me” and “If we do something hard together, we do it well” (scoring from 1 to 5) or “Some people are deciding what to do after school. Telling them what you want to do is...”, which is indicated with a response ranging from “very hard” to “easy”. Similar questions are asked to measure involvement and performance in academic contexts (“have you ever taken an advanced or honours class”, or “in general, do you complete homework in time” etc.). Involvement and achievement in athletic contexts is measured in a similar way, i.e. “How much do you like to play team sports?”, “have you ever won an award for team sports?” or “have you ever played in a league, school team or other organised group?”. Involvement in employment context is measured by number of hours per week, and religious context by questions such as how many religious activities in which the respondents have participated over the past year, and with questions such as “What is your belief in God?” (varying along a four-point scale from 1. “don’t believe in God” to 4. “Sure, God exists”). The involvement and identification with cultural contexts was measured with questions such as “I would like to belong to another ethnic group”, “I participate in cultural practices of my group”, and “I have a clear sense of my ethnic background and what it means to me”.

71
The developmental outcomes are measured as self-esteem (using the mean of a 5 item global self-worth subscale of the self-Perception Profile for Adolescents by Harter, 1988), depressive symptoms (using the mean of a 14 item scale adopted from the Youth Self-report, including questions such as “I feel lonely” or “I feel worthless or inferior), and self-reported delinquency (using a 15 item scale including questions such as whether the respondents have been involved in a range of behaviours, including “Intentionally damaged or destroyed property that did not belong to you”, “Shoplifting”, and “Attacked or hit and adult”.

The article reports a number of interesting results. Nine profiles were identified portraying different levels of contextual affiliation. These are 1) Engaged Non-Worker, which counts young people who are engaged in many contexts except for employment. Moreover there is the profile 2) Engaged Worker, consisting of young people who are employed and engaged in several other contexts. Third, there is 3) Engaged Non-Athlete, and 4) the Strong Religious Connection Profile, who was characterised by high religious engagement, but average or below average engagement in other contexts. Furthermore there were the profiles Culturally Disengaged Athlete and Academically Disengaged Athlete, with low engagement in cultural contexts and academic contexts, respectively. The Worker profile counts young people engaged in employment, but low engagement in the other contexts (particularly peer, religion, and culture), and the Low Efficacy Academic reported moderate engagement in the academic context, but very low endorsements along the ‘self-in-context’ and the employment contexts. Finally, there was one profile characterised by consistently low endorsements, which is termed ‘Disconnected’.

The findings reveal that the more contexts in which young people participate, the higher the self-esteem, and the lower the risk of depression. High engagement in multiple contexts is thereby understood to be more favourable than high engagement in only one context. Youth in profiles characterised by employment, peers and athletics reported more serious delinquency behaviours than youth within the other profiles. Three general conclusions are drawn. First, it is viable and fruitful to conceptualise adolescent competence as holistic, multidimensional, and contextually based (Pedersen et al. 2005: 78). Second, the findings moreover demonstrated the existence of multiple profiles of contextual competence among low-income urban adolescents, and third, high engagement in multiple contexts of adolescent development is associated with more adaptive psychosocial outcomes than engagement in one or fewer domains. This rests on the assumption that competence development can be measured on delinquency, depression and self-esteem. This means that there are many relatively adaptive constellations of urban adolescent engagement with salient contexts of development. It is argued that ‘competence likely develops through transactions in specific social contexts or settings’ (Pedersen et al. 2005: 78). Interestingly, and contrary to what is traditionally expected, this study demonstrates that there is not one single conclusion to be drawn about participation in specific contexts. For example, it is usually assumed that employment or education prevents young people from developing delinquent behaviours, but Pedersen et al.’s study shows that this depends very much on the “package” of youth transactions (Pedersen et al. 2005: 79), i.e. whether these young people are also engaged in several other contexts. Engagement in the athletic context or employment alone indicates higher risk of delinquency behaviour compared to the Disengaged youth profile. And those who are engaged in multiple contexts portray less risk than those involved in one context. This means that youth competence cannot and should not be explained solely in terms of academic success. For mental wellbeing it is important to be involved in multiple contexts more than being involved in a single context, even if this single context is normally assumed to promote mental wellbeing.
(religious context, academic context etc.). Mental health promotion therefore must enhance youth participation in multiple contexts.

c) Developing life skills: A dynamic relation between competence and participation

Holt, Tink, Mandigo and Fox’ article ‘Do youth learn life skills through their involvement in high school sport? A case study’ (2008) reports an investigation of how young people develop life skills through participation in a social context. By life skills the authors mean ‘the skills that are required to deal with the demands and challenges of everyday life. They can be physical, behavioural, or cognitive, and may be transferable to other life domains’ (Holt et al. 2008: 282, see also Petitpas, Van Raalte, Cornelius & Presbrey, 2004). They have studied a sports team through one season, using qualitative interview methods to investigate the way in which sports participation influences young people’s life skills. The authors also find support in the theoretical domain of ‘positive youth development’, and the five C’s described above (competence, confidence, connection, character, caring/compassion), and in an ecological systems theory (Bronfenbrenner 1977). They emphasise that life skills are constituted in relation to the social context. For example, when asked about the life skills they had developed, the students would refer to the same virtues that were emphasised in a symbolic pattern surrounding the team (respect, responsibility, integrity etc.), even though the students did not remember the school’s key virtues. Nor were these virtues ever made explicit in the teachings or programmes. The development of life skills is therefore a psycho-social phenomenon. As described above, the problem with this theoretical perspective is that the self-regulation skills are defined in relation to the social (primarily micro-) context, and if the norms of this context are not critically interrogated, then positive youth development merely means adaptation to the prevalent norms of a given social context. It is understood that in the ecological systems perspective, the micro-norms are influenced by ‘macro-norms’, for example economic systems and public policy. In this study, however, there are no references to how the economic system actually influences the concrete sports team.

The students by and large try to live up to the virtues that the coach formulates and, more importantly, the values that he does not articulate but rather embodies. The coach in collaboration with the school and other teachers, create structures, through which the young people portray certain life skills. The life skills that the students report are initiative, respect, and teamwork/leadership. Concretely, these virtues are understood by the athletes as respect towards the team, not towards the broader context of other students and society as a whole. In other words, the students try to live up to these norms that appear in this context. Importantly, the life skills that are generated in this specific situation may or may not be transferable to other situations, in which new criteria for assessing certain individual contexts are used for context behaviours as skilful exist. Therefore, the authors aspire to provide a non-normative account of the life skills required in a specific context. They are not, however, arguing that these specific skills, needed to perform well in this specific environment, are generalizable or transferable to other domains. Regardless of whether they, the authors, support the values inherent in this specific way of regulating the self, i.e. of generating valuable outcomes, it seems that these skills are rated highly in this specific context.

Involvement in social contexts (high school sport) ↔ developing life skills (↔ context dependant)

The strength of the study is the authors’ way of showing how the life skills gradually materialise in the athletes as a result of a psycho-social pattern of symbolic recognition. The authors make a point of showing that the embodiment of these norms happens as a result of being embedded in this culture. For example, they provide an example where the other team cancelled a game the next day, and the athletes asked the
coach if they were going to have a training session instead. The coach responded that he would be on the field the following day if they wanted to play, but there would be no point in running a session if only a few players would attend. The children then took a straw poll and decided that there was going to be practice session the next day. In this way they showed initiative and responsibility, even though they had not been taught this explicitly. No student-athletes reported having learned initiative directly from playing soccer, but being in this context they demonstrated initiative, even though the authors were not able to establish how, why and where the student athletes learned about initiative. It was not expressed in the curriculum, nor explicitly taught by the coach or their other teachers. But the structures of the sports team created an opportunity to display such qualities. However, the authors do not evaluate the life skills in light of prevalent cultural and economic norms. The ideal of a sportsman who is responsible towards his team mates, shows initiative, leadership and self-control, supports the development of a specific kind of student. The sport programme, thus, could be understood more broadly as a perfect preparation for future soldiers, or for future business men who will develop the necessary skills to become capable of performing at a competitive market. The authors do not even attempt to situate the development of these life skills, and so-called ‘positive youth development’ in relation to the wider society in which these young people are later going to be productive members. When concluding that the young people acquire life skills, it is the question of the quality or value of these skills that is at stake. Being skilled, competent or capable means being able to perform well, and we as readers are left wondering about the value and definition of this ‘well’.

In Mueller, Phelps, Bowers, Agans, Urban and Lerner’s ‘Youth development program participation and intentional self-regulation skills: Contextual and individual bases of pathways to positive youth development’ (2011), the concepts of participation and competence enter into an overall notion of ‘positive youth development’. The article begins with an introduction to traditional conceptions of youth and adolescence, and remarks that this period in the development of a human being is necessarily a time of conflict and stress. Traditional research has presumed that this is a fact of nature. Parents and teachers, then, are supposed to ameliorate this condition. On the contrary, the authors of this study propose that the stress and conflict at this time of young people’s development is influenced by the social context of the adolescents, i.e. family, peers, school. With a reference to among others Bronfenbrenner, their theoretical point of departure is an understanding that ‘the fundamental processes of human development involves mutually-influential relations between the developing individual and the multiple levels of the ecology of human development, represented as individual ↔ context relations’ (Mueller et al. 2011: 1116). This time of a young person’s development is very important for identity development and for structuring positive, pro-social peer relations, and activity participation is a context in which this development may be fostered.

The article hypothesises that it is possible to create such a positive development for these individuals by directing attention to their social context, through a coordinated effort of youth programs, families, teachers and ‘programmatic experiences’ (Mueller et al 2011: 1116). It is claimed that an extensive body of literature has shown that participation in ‘high quality, out-of-school-time’ programs promote a host of positive outcomes including, but not limited to, initiative skills, civic engagement, and overall positive youth development’ (Mueller et al. 2011: 1116). The core problem with this article is that it does not critically investigate what is actually meant by ‘positive youth development’. The positive youth programmes are characterised as 1) positive and sustained adult-youth relations’, 2) youth life skill building activities (for example learning time management skills), and 3) youth participation in and leadership of valued
community activities. To sum up, these activities are meant to provide an environment that can encourage youth to develop leadership and agency and to develop needed and useful life skills (see also Howie et al. 2010). The authors note that although research suggests that increased participation in out-of-school activities increase positive development, this depends on the types of activities and their connection to other types of activities. Too many activities, for example, may increase stress among children. Therefore, the question that the authors pose is how much, and what kinds of programmes are beneficial to youth. According to the authors, Getsdóttir, Lerner and others have suggested that intentional self-regulation behaviours are the characteristics that youth need to seek out and maximally use the resources in the environment. Self-regulation skills thus consist of the selection of goals, acting to optimise the resources to make such goals a reality, and possessing the ability to compensate effectively when goals are blocked (SOC-skills). Therefore, the SOC model assesses ‘adolescent’s adaptive intentional self-regulation skills’ (Mueller et al. 2011: 1117), and self-regulation skills are expected to promote positive youth development. Positive Youth Development is conceptualised as competence, confidence, connection, character and caring (The five Cs’s). Competence is defined as ‘a positive view of one’s action in domain specific areas including the social and academic domains’. These concepts are used to assess domains of healthy development and place youth on a life trajectory characterised by the beneficial individual context relation, which in turn leads to the sixth ‘C’, i.e. contribution (to community and society). The authors find that participating in youth development programmes is positively linked with self-regulation skills, which in turn predicts positive youth development. The question is, ‘how does the combination of youth skills, as operationalized as SOC, and the contextual asset of participation in youth development programs, combine within and across time to promote mutually-beneficial relations that may lead to thriving among youth’ (Mueller et al. 2011: 1117).

Participation (in youth development programmes) ⇔ Self-regulation skills ⇔ positive development

However, a problem with the argument is its tautological nature. Positive youth development is a product of participation in youth development programs that are defined as positive involvement with adults, positive life skills development, and involvement in valued community activities. In other words, positive development is a product of positive activities and skills (which is hardly surprising). But the understanding of what is positive about adult relationships, life skills, and community involvement depends highly on the nature of these relationships, self-regulation skills and communities. The programmes investigated are Girl and Boy Scout programmes, YMCA, and girls’ and boys’ clubs. However, the article does not investigate the qualitative differences between youth development programmes that have different ideological rationales, or different educational curricula. In fact, the question is whether the word ‘positive’ even means anything at all without inserting the supposed value in a broader social, historical, cultural and economic context. The necessary self-regulation skills (selection, optimisation, compensation) in order for young individuals to adapt to the prevalent norms of society depend highly on these prevalent norms. The authors note in conclusion that he particular mechanisms at work in each specific youth development programme constitutes a ‘black box’ (Mueller 2011: 1123), and it is suggested that future research should look into these mechanisms. One might wonder, however, whether it makes sense at all to determine any kind of development as positive without situating the outcome in a wider society, vis-à-vis the prevalent norms of that society. Not just the micro-social context (a school, a class, a sports team), but rather the social and economic exigencies of society.
6. Capability and the evaluation of children's and young peoples' participation

a) Universal or contingent measures of children’s capabilities and wellbeing

In the article ‘Children’s Competence and the Ecology of Communities: A functional approach to the evaluation of participation’ (2002), Chawla and Heft seek to ‘illuminate processes of participation that may foster children’s competence in exploring, evaluating and improving their everyday environment and influencing the political structures that determine its use, with the ultimate goal of promoting ecological sustainability’ (Chawla & Heft 2002: 202). The goal is to develop a theory of children’s competence and participation in order to provide a foundation for evaluating children’s conditions globally. Participation is defined broadly as both formal and informal opportunities to engage with the environment in the public realm (Chawla & Heft, 2002: 202), and the article aims to define the conditions for participation that foster competence in environmental change. They seek to ‘ground these conditions in a theoretical perspective that places children and the environment together in a common realm’ in order to avoid social constructionism that they understand as a widespread epistemological position in the psychological and social sciences. Social constructionism, they argue, is the position that the world in itself and children’s experiences of the world are two separate realms, and therefore ‘all that can be known is one’s own mental experience of the world. Individuals are left adrift in their own subjective realms’ (Chawla & Heft 2002: 202). This position ‘does not seem compatible to us with an interest in environmental sustainability and activism because it puts the real environment always out of reach’ (Chawla & Heft 2002: 202). In other words, this epistemological position cannot be true, because otherwise the authors would not be able to work actively for environmental sustainability.

Chawla and Heft provide the example that the image of an autonomous, individuated child is a product of Western hegemony, and cannot be utilised as a universal standard for cross-cultural evaluation of children’s rights globally.

*Taken in its extreme form, however, this social constructivist view would maintain that there are no universals in child development with the implication that there are no criteria for healthy development apart from distinct and typically incommensurate cultural value systems. (Chawla & Heft 2002: 205).*

The argument is based on the premise that ‘healthy development’ requires the existence of ‘universal criteria in child development’. Therefore, the authors defend and favour an alternative position that ‘accepts that there are certain basic needs for healthy child development common to all cultures, which evaluations of children’s participation can usefully address, while at the same time recognizing that evaluation needs to include specific, community-based goals’ (Chawla & Heft 2002: 205). But the premise that there is no healthy development without universals is never justified. The authors supposedly find in Nussbaum and Sen’s ‘capability approach’ a basis for inquiring into these ‘universals’. They find in Nussbaum a possibility to mediate between the dichotomy supposedly posed by social constructivism between relativism and universalism, and ‘specify essential qualities of human life that functions according to its full capabilities, while at the same time acknowledging the wide range of ways that these qualities are manifested within different social-cultural contexts’ (Nussbaum paraphrased in Chawla & Heft, 2002: 205).

The problem is, however, that in cases of conflict between universal needs and specific, cultural demands, we are not told what to do. Understanding the difference that other cultures present to our own understanding is precisely a challenge. So the question is whether it is possible to pinpoint a number of
universal capabilities other than as culturally specific ideals for children’s healthy development that may then serve as inputs to an ever on-going discussion about these ideals. It must be said also that this understanding of universal capabilities is based on a specific interpretation of Martha Nussbaum, and does not correspond to other uses and interpretations of the capabilities approach (cf. Sen 1992), which is not a universal theory. The need to define universal criteria of assessment makes sense within a discourse of evaluation, because evaluating is easier if a set of constants can be defined once and for all. Complexity is not a problem for evaluation, but contingency is, unless the contingent and always partial nature of assessment is accepted as a condition.

It is important for Chawla and Heft to stress the ecological, relational perspective, i.e. the relation between the organism and its environment. The environment is not a strange unfamiliar something from which the individual is alienated. The environment is described in psychologically meaningful ways. This ecological or relational perspective allows the authors to define two kinds of participation: Individuals’ activities are either ‘performatory’ or ‘exploratory’. A performatory activity is directed towards an object or other individuals within a setting with an intended purpose. Exploratory activities are directed towards discovering new properties in or of the environment. These activities are also purposive or intentional, but the end that will be discovered through the action cannot always be specified in advance. Moreover, individuals impose structure on an already structured world. This activity is described as *productive* activities, through which ‘aspects of the world are transformed, with new environmental structures having particular functional properties being created’ (Chawla and Heft 2002: 206). These new constructions are not necessarily positive in their broader effects on the environment. Nor are the effects necessarily intended. Therefore, it is necessary to have an ‘understanding of what constitutes a well-functioning natural ecology’, and understanding ‘the limits to human interference’. This is where, according to Chawla and Heft, Nussbaum’s attempts to ‘specify the essential capabilities that constitute human functioning at its fullest become necessary, as well as how these capabilities may be filled in by the particulars of local contexts’ (Chawla & Heft 2002: 207). The new structures created by the activities through which individuals and groups alter their surroundings form the subsequent contexts for new actions. The ‘environment- actions processes’ therefore have a socio-historical character. The way new activities influence an individual depends on the prior history of this individual’s performatory, exploratory or productive actions. ‘The psychological outcome of these recurring experiences for the individual can be called competence’ (Chawla & Heft 2002: 207). When over time individuals are disposed to new actions through prior experiences, competence can be developed.

For example, when an infant kicks a moving object, and the movement of the object is a consequence of the infant’s kicking, this behaviour occurs for a longer period than if the movement of the object is controlled by the experimenter. It is the child’s interaction with the environment that explains the child’s motivation to interact with the environment, and which explains the pleasure that this stimulation arouses in the child. ‘Thus, in the process of learning about an interesting event in the world, young infants reciprocally learn about the extent of their own capabilities’ (Chawla & Heft 2002: 207). Efficacious action that promotes subsequent efforts of purposive, goal directed action is replete in the literatures on self-efficacy (see also White’s concept of ‘effectance’ 1959: 322). ‘From the outset of life, individuals are inclined to engage their world in a directed manner to the degree that their skills in motor control permit’ (Chawla & Heft, 2002. 207).
The idea inherent in Nussbaum’s concept of human capabilities, which Chawla and Heft draw upon, presupposes an Aristotelian, somewhat teleological notion of the purpose of human life. If human beings attempt to realise their capabilities, there must be at least an ideal, a vague idea of the purpose of human life. Although human life assumes a multitude of different forms according to Chawla and Heft it is still, at least in principle, possible to ‘identify some essential qualities that transcend the diversity of developmental values expressed by global cultures, and moreover, to specify some optimal conditions for children’s development despite this diversity’ (Chawla & Heft 2002: 205). The apple of discord has to do with whether these essential qualities and optimal conditions can be identified positively, or whether they amount to an ideal that human beings try to manifest in still novel, undefined and experiential ways. Nussbaum describes the ‘human being as a dignified, free being whoshapes his/her own life’ (Nussbaum, quoted in Chawla and Heft 2002: 205), which might be taken to indicate that the purposes of human life are created experientially along the way. However, there is a big difference between an anti-essentialist, anti-universalist idea of the purpose of human life, on the one hand, and Chawla and Heft, on the other. Chawla and Heft seem adamant to explicate children’s ‘opportunities to experience potentially competence-promoting activities’, and according to them, the focus on competence transcends the setting differences, and identifies ‘a quality that is universally characteristic of human functioning and well worth promoting’. However, they note, ‘it is unlikely that a single measure of competence could be designed that would apply to the variety of settings for children found in different parts of the world’. Yet, it ‘might be the case that settings or programs that share similar goals and values could be grouped into a taxonomy of types’, and thus ‘design competence measures that would apply to the variety of settings within a given type (Chawla & Heft 2002: 213). They therefore argue for the possibility to define the essential qualities of human life positively or taxonomically, rather than defining the essence of human life as the ability to shape its essence experientially (cf. Sartre). Contrary to Chawla and Heft’s interpretation of Nussbaum it might also be argued that human life unfolds as it happens, and cannot be defined in advance, and not at all captured by set of assessment criteria. Moreover, Chawla and Heft’s particular universalistic interpretation of the capabilities approach differs from for example Amartya Sen’s approach as well as other more conventional proponents of the capabilities approach.

b) Measuring participation in childhood disability

An example of how the capability approach could be applied in assessment of children’s participation is provided by Christopher Morris. In the article ‘Measuring participation in childhood disability: how does the capability approach improve our understanding?’ (2009), he argues that when measuring participation in childhood disability, incorporating a capability perspective may be more enlightening than measuring solely capacity and performance. His objective is the International Classification of Functioning, Disability, and Health (ICF). Maximising children’s effective participation is the overarching goal in providing services for disabled children. Participation is defined in the ICF as ‘involvement in life situations’ and for children, includes domains of learning and applying knowledge, communication, home life, school life, relationships, and leisure and recreation (Morris 2009: 92). The ICF offers two qualifiers for activities and participation: These are ‘capacity’ (what a child can do in an ideal environment) and ‘performance’ (what a child actually does in the environment in which they live). Capacity is understood to be the sum of personal factors and body functions and structures, and the lived environment is conceived as products and technology, natural environmental and human-made changes to the environment, support and relationships, attitudes, and services, systems and policies. Inconsistencies between capacity and performance are presumed to be due to environmental or personal contexts. The choices made by children are moreover influenced by the
child’s personal factors, former experiences and interactions with the environment, and individual psychology. Moreover, the choices are also influenced by social factors such as family, friends and society. However, Sen and Nussbaum’s capabilities approach, it is argued, informs and nuances this model (see fig. 26), since choices can be varied by the actual capabilities of a child.

*Fig. 26 – Morris’ (2009) model used for measuring participation and capabilities in childhood disability.*

Capability, in this sense, is not the same as capacity, since a disabled child may have the cognitive and motor capacity to use a computer, but there is no computer at home, or the computer is not adapted to be made useable by the child. The capacity to learn to swim requires also the capability, i.e. the presence of a swimming pool. ‘To be clear, the distinction is between capacity as a “person at best” construct and capability as a concept that combines the person, resources and context’ (Morris 2009: 93). Morris avoids the use of the concept of competence, but interpreted in light of what has been stated above, competence could be conceived in the following way: If the child has the capacity, but not the capability, this means that the child does not develop the competence to use the computer, because, as we have heard above, the development of competence requires an on-going stimulation from the environment. A capability set portrays a range of possible functions that influence what is actually being done, i.e. the choices made by the children. Sen recommends that situation or application dependent lists can be produced in a democratic process with input from those whose capabilities are being assessed. This enables an evaluation of services for disabled children not just by classifying the capacities, but also to provide a scaled measure of capabilities, i.e. the extent to which children are capable of participating.

**Summary and assessment of qualitative findings**

**Ability to participate**

The first group of texts analysed qualitatively focussed on children and young people’s ability to participate. Focus was very often on children and young people with special needs due to disability or impairment. An advantage of these studies is that they are capable of making visible the functionings, capacities, abilities
and competences, which are normally not recognised. Ability and competence is quite often a functioning or capacity of which it is difficult to raise an explicit awareness, because they are integrated in our daily lives and routines in our everyday lives. Moreover, they are often normal as opposed to exceptional (cf. Mandich et al. 2003). It takes an extraordinary event (such as the occurrence of disability, disease, participation difficulty etc.) to raise awareness of the existence of such abilities or competences (in the same way that we are sometimes made aware of our ability to breathe when we are short of breath or have difficulties breathing). Therefore, the focus on disability, and hence the normal abilities that are required to participate in ordinary everyday routines, stand out visibly in these cases. This is an epistemological quality of these studies if one wants to investigate competences normally unthought-of, which can have methodological implications.

As a consequence of the necessity to make the required abilities explicit, the forms of participation, and furthermore what is meant by participation, also need to be made explicit in these studies. Hoogsteen and Woodgate (2010), for example, make the participation of disabled children explicit, and identify the antecedents and consequences of participation. Important aspects of participation are therefore 1) being involved in some activity together with others, i.e. the social aspect, 2) a feeling of inclusion, of partaking, 3) a choice or control over what they are taking part in (corresponding to the freedom aspect in the capability approach, as well as the mastery aspect of White’s article), and, importantly, 4) participation must be directed towards some meaningful goal or enhancing the quality of life, i.e. there must be some kind of perceived purposeful goal, and a development towards that goal. The disability perspective therefore has the capacity to draw out and make explicit what is understood by participation.

The disadvantage, on the other hand, of these above mentioned studies, is that competences and the requirements for participation are sometimes studied from a perspective of deficit (however, not necessarily, which is clear in Hoogsteen and Woodgate’s article). Consequently, the development of competence is conceived on those terms. These studies therefore tend to focus on the special needs and on means of compensation, for example professionals’ and caregivers’ competences to provide the necessary support for a positive development, health and wellbeing.

Skill or competence development through participation
The perspectives inherent in the next group of texts concerning skill or competence development through participation also have a set of advantages as well as disadvantages. One advantage concerns these articles’ abilities to address the cultural, social or economic context in light of which a functioning or performance can be understood as competent. This is not always the case with articles assuming a micro-perspective, zooming in on a specific situation or context. Such micro-studies assume a perspective which is defined by the specific context, and the values inherent in the concepts of competence and competence development are defined in relation to the context. When Icelandic children’s own perceptions of their competences are analysed with regards to whether these children live in rural or urban areas, we are at the same time introduced to culturally diverse ways of conceiving of participation and competence development. Concepts such as ‘social capital’ or ‘socialisation for competence’ address the structures, norms or values embedded of the context through which specific abilities or functionings can be understood as competent.
A study reporting adult Afro-American men who think back and reflect on their upbringing, the rationales for involving them in specific ways in household chores, is at the same time a way of addressing the cultural rationality of this particular segment of the American population, in light of which specific ways of doing
things are perceived as competences. This is a way of addressing the cultural norms inherent in this cultural setting (Penha-Lopes 2006).

Another advantage of the large scale investigations of skill development through participation in for example educational programmes (physical education, schools, etc.) is that very different types of activities can be correlated with each other. Does high-school sport participation lead to development of leadership skills, self-regulation skills, social competence, or better performance in school? These types of measures can provide an indication of whether specific types of activities generally have a positive or negative effect on these children’s competence development, although this ways of conceptualising and operationalizing ‘skills’ or ‘competences’ is undoubtedly very limited and one-dimensional. This is a way of investigating connections between very different areas of children’s lives.

The disadvantages have already been touched upon above. The findings in studies that assume a macro-perspective very often reduce the conceptualisation of the relation between participation and competence to a one-dimensional relation. If children participate in a specific activity then consequently they develop certain skills. Therefore, the specific mechanisms at play in the context are not rendered visible. Some studies, however, provide insight into these mechanisms by describing the learning processes.

Moreover, the relation between participation and competence development is thereby sometimes portrayed as a deterministic one-way causal effect. Participation inevitably leads to specific outcomes. If children come from a poor background they are likely to reiterate the same unfortunate patterns that characterise their parent’s lives. Children from such groups receive low grades and do not perform well in tests, and do not score high on social competence, self-esteem and popularity tests. Their social background predicts their perceptions of their own competences. There is a risk that such studies may portray the relation between participation and competence as a deterministic outcome of the social background variables. Such studies are less inclined to investigate the subtle, complex and dynamic interplays between participation and competence development.

Another disadvantage, which is seen from the statistical mapping, is that participation is usually conceived as mere presence, i.e. the nature of the involvement, engagement, feeling of participation etc. are not necessarily discussed in these articles. There are many different ways of participating in for example an educational programme, and these different forms of participation yield different forms of perceived competences and competence development.

Complex, contextual, reciprocal relation between participation and competence development
When we look at the concepts of competence, i.e. on their various aspects, and furthermore contemplate the complex, dynamic relation between participation and competence, these articles also have advantages and disadvantages. Such texts generally apply very complex and multi-dimensional concepts of competence and participation. For example, Helen Hastes five dimensions of competence: 1) Managing ambiguity and uncertainty, 2) Managing technological change, 3) Agency and responsibility, 4) Finding and sustaining community, and 5) Managing emotion. These five aspects of competence testify to a broad and multifaceted concept of competence, which is linked in a dynamic way with ‘civic participation’. Furthermore, Pedersen et al.’s article concerning multiple dimensions of ‘contextual competence’ shows that it does not suffice to address young people’s competences as they appear within one context (school or work for example), but that young people demonstrate contextual competences, which depend on their
participation in various other contexts. Therefore, assessment of young people’s competences must focus not on one context alone, but on the interplay between the many different contexts in which they participate.

Moreover, Ragnhildur Bjarnadottir’s article (2004) about Icelandic children’s perceptions of their own competences, which distinguishes a private, and a social dimension of competence, as well as an inner and an external dimension. These perceived competences are a product of participation in leisure activities, but the type of participation referred to here is an elaborate concept of participation, involving informal learning environments and different kinds of activities. The development of such competences is not merely an outcome of being present in a programme or a class, but requires complex interaction with peers in and out of school, support and encouragement from teachers and other professionals etc.

As mentioned above it is easy in such studies to lose sight of the overall societal structures (cultural norms, demands) that influence how specific competences are valued within a given context. For example, patient ‘self-care’ is highly valued by professionals and patients within a health care setting, and this ability or competence is also and at the same time favoured by a political system that aims to transfer responsibility for the management of illness and disease from a State level to an individual level in order to reduce health expenditures. Health professionals and patients are not necessarily aware of this macro-economic and political context that increasingly makes self-care a valued competence (Ljungdalh 2012). This is seen among others in the above discussion of young people’s financial capabilities (Sherraden et al. 2011), and in articles about children and young people’s life skills and self-regulation skills (Howie et al. 2010) and positive youth development (Mueller et al. 2011).

There are several advantages with the articles portraying complex, contextual and reciprocaly connected concepts of competence and participation. However, one of the disadvantages is that it is easy to get lost in the context (as described above), but the detailed, nuanced, multifaceted perspective is at the same time an advantage, because a complex and rich phenomenon is elaborated. These studies therefore portray the intricate, subtle and complex workings of participation and competence development instead of reducing the connection between these concepts to a one-dimensional causal relation. Moreover, the understanding of competences are not reduced to simple criteria such as test scores, and cannot be reduced to universal skills that do not change when the context changes. This provides a rich and detailed understanding of competences, and the relation between competence and participation in multiple contexts, and how competences are developed. These insights may aid decision-makers and professionals to generate a more complex understanding of how children and young people participate and develop competences. For example, the general assumption that education leads to better health, better quality of life and welfare may be nuanced considerably by asking how this in fact happens, what specific kinds of education are good for specific children with specific needs, and how participation in educational programmes could be established to enable children in particular contexts to benefit from these educational activities.

The complex and contextual concepts of participation and competence development in this study draw from more or less the same theoretical resources as the BUK programme. It is adamant for these studies to provide alternative understandings of children and young people’s competences in order to challenge the often simple and reductionist view of skills within formal education settings. In formal learning contexts, competence has traditionally been reduced to a universal set of skills transferable between various contexts, often conceptualised as traditional abstract academic skills (language skills, math skills etc.). This
way of conceiving (and measuring) competences provides a one-dimensional picture of children’s competences. The complex and contextual ways of conceiving of the interplay between competence and participation points towards other aspects of life, such as emotional and personal aspects, and quite often various forms of social competences (social skills, self-efficacy, life skills, communication skills, interactional skills etc.). Action competence (Simovska 2007, Jensen & Schnack 2006) is another concept that challenges these traditional conceptions of skills. These are theoretical developments challenging concepts within traditional formal education. In this review, however, not all articles classified as ‘education’ apply a universal and simple concept of skills, but also emphasise social competence, life skills and forms of learning that draw on complex and contextual concepts of competence, for example experiential and cooperative learning (Junge, Manglallan & Raskauskas 2003).

Moreover, these flexible conceptualisations of competence and competence development at the same time enable a more nuanced way of conceiving participation. If competence is contextually defined, then the context becomes an object of interest (which is not the case if skills are universal and therefore unchanged when transferred to other contexts). The question raised by some of the studies reviewed here is not just how competence is developed in a complex and contextual way, but also how the forms of participation could be changed or adjusted to allow for a more optimal competence development. Learning to ride a bike for a disabled child is not just a matter of developing new skills, but also of changing the very form of participation, i.e. developing new forms of participation for this particular disabled child. His competences might be developed, but in this case his development is intricately connected to the development of a new form of participation. This child cannot run and play with the other kids on the road, but the bike introduces a new game which enables him to participate on a more equal footing. The introduction of this new game perhaps demands new skills, but it could also be conceived as the development of a new form of participation.

Conclusion, feedback and further challenges

Feeding back on the BUK Research Programme
The above statistical and qualitative mapping of various research areas, concepts of participation, competence and competence development, as well as of the relations between these concepts, has disclosed a number of characteristics. There are three overall patterns identified in the statistical analysis as clusters. The overall patterns are the following: 1) First, the concept of ability, or ability to participate, is mostly associated with research within the areas of health, disability, disorder, impairment, physical, motor and sensory abilities, and sport. Within the areas of disability or disorder, ability is mostly understood as disability or participation difficulties. 2) Second, the concepts of skill or skills development are mostly associated with various forms of education, and tend to imply a concept of participation defined as mere presence. Third, 3) concepts of participation and competence that are reciprocally defined, i.e. with a dynamic interplay between these two concepts, are mostly found within education and the areas loosely categorised as ‘social’ (i.e. citizenship education, child protection, child welfare, social welfare etc.). This group of abstracts and articles also tends to imply more elaborate concepts of competence and participation, i.e. competence development, contextual competence and participation, feeling of participation, involvement, influence etc. Child or youth development studies also tend to apply contextually defined concepts of competence as well as a concept of competence development.
Moreover, the statistical analyses revealed various correlations between the main concepts and their internal relations. First, there were four different uses of the concept of competence, 1) skills or competence development, 2) ability, competence difficulty, and context, 3) contextual concept of competence and competence development, and 4) perceived competences. Concerning participation there were three overall uses: 1) participation understood as mere presence, 2) feeling of participation, influence, development of participation, and 3) participation difficulty. There were often several definitions of competence and participation in one a single text, (between two and four). When the definitions of competence and participation are cross referenced the following characteristics appear. ‘Competence difficulty’, i.e. disability, is negatively correlated with ‘participation understood as influence’ and ‘feeling of participation’. Ability correlates with involvement and with having a feeling of participation. All in all, there were three overall patterns. 1) Disability and participation difficulty, lack of involvement, no competence development. 2) In abstracts where participation equals presence there is a non-contextual acquisition of skills as a consequence of participation, which correlates with perceived competence. 3) Last, a multi-dimensional field comprising development of forms of participation, contextually defined competence, capability, influence, feeling of participation, and involvement. Contextually defined concepts of competence are correlated with informal kinds of education, with development of forms of participation, and with informal learning environments such as out-of-school contexts and everyday life. If a concept of skill is applied, it correlates positively with competence development, but not with development of participation. And if a concept of ability appears in the abstract it is likely to imply a one-way connection between competence and participation, or with a reciprocal relation. The identification of a number of disciplines/research areas/subjects has made it possible to correlate the various conceptual features of participation and competence with a number of different fields of practice. The findings indicate that the main concepts are used and understood differently within these various fields. The various fields of education (physical education, citizenship education, curriculum studies) implies that competence or skill development is a consequence of participation, whether or not participation is understood as mere presence, as involvement, or as influence. The fields of motor/sensory/physical functions imply that children need certain abilities to be able to participate. A multi-dimensional research field has been disclosed, comprising the subjects ‘social’, ‘child/youth development’ and ‘informal education’, which is likely to imply dynamic and contextual concepts of competence and participation, as well as multi-causal types of explanations. This latter finding matches the BUK research programme.

Furthermore, when considering the age variables, it seems that the older the children /young people are, the more multifaceted and multi-dimensional the concepts of competence and participation. The younger the children are, the more simple and one-dimensional the concepts.

The theoretical frameworks of learning applied in the group of texts concerning competence development, contextually and reciprocally defined concepts of competence and participation are typically informal learning theories, situated learning, ecological psychology, experiential learning, learning through participation, cooperative learning, i.e. socio-cultural theories of learning. And the authors most often quoted are Lave and Wenger, Vygotsky, Bronfenbrenner, and Lerner. This corresponds very well with some of the theoretical sources from which the BUK programme draws inspiration. There is one aspect which is sometimes emphasised in these studies, which is the possibility for developing forms of participation in addition to competence development, which might inspire the BUK-programme further. Although the BUK programme is adamant with regards to retaining a non-normative perspective on the connection between
participation and competence development, there might still be useful conceptualisations within these often normative theoretical and conceptual frameworks (in promoting democratic schools, health promotion, democratic citizenship, civic participation etc.).

A further perspective of relevance not only to the BUK research programme, but to research in this area more broadly, is the epistemological and methodological perspective inherent in the literature concerning various forms of disability, disorder, participation difficulties, impairments etc. As argued and demonstrated in some of the above examples, children and young people with special needs, disabilities, or difficulties allow researchers to see more visibly, and to better conceptualise, the competences that are necessary in order to participate effectively in various activities. Autism reveals the aspects of social competence needed to be able to participate in social contexts with other people. Moreover, as Mandich et al. suggest, it is an extraordinary event for the parents of children with development coordination disorders when these children fall short in the context of normal childhood activities, i.e. when their incapability to play with other children becomes visible. This is an important epistemological and methodological point when considering the further conceptual development within this research area. Children and young people’s participation difficulties and lack of competences demonstrate vividly the norms or exigencies within a given context that demands specific skills, abilities or competences in order to participate and function within a given practice. If, for example, specific language skills are required in order to participate in a language community, then foreign language students or children with complex communication needs offer a unique view into the communication and interaction competences needed to enable successful social participation within a language community. The incapacity, incapability, or disability to participate has the capacity to make the requirements for participation visible. It is important to emphasise that this is not a delineation of a field of practice, but rather a specific point of view, i.e. a perspective that may be adopted when inquiring into children’s and young people’s participation and competences.

Therefore, the above mapping and review also suggests different ways of understanding or portraying the various relations between competence and participation. The above analyses have depicted these relations as either one-way or as reciprocally dynamically connected causal relations. Some of these various connections address motivation, interest or needs as drivers or causes of participation and competence development. Either an interest in gardening predicts participation in after-school gardening programmes and the subsequent development of gardening skills, or emotions explain civic participation such as environmental protection or participation in deliberative processes, which further predicts political competence. BUK-senterets research programme does not draw on theories that explain motivation as a drive, a lack, a need or a deficit, but rather, inspired by Robert White (1959), understands motivation as something to do with the mastery of the environment, i.e. of successful functioning. This is a difference between much of the reviewed literature and the BUK-programme. In light of White’s theory of motivation and competence it makes no sense to separate participation in an environment from the competences acquired (or required), or to suggest a one-way causal connection. Participation and competence mutually and reciprocally presuppose each other, and leads to further development of competence.

The concept of competence in the BUK-programme has five components: 1) knowledge, 2) skills, 3) control over relevant external conditions, 4) identity, and 5) readiness for action. There is a dynamic relationship between these main components. The fifth component, readiness for action, develops on the basis of an
articulate that it is participation in decision-making. The kind of participation invoked in these studies is not mere presence or involvement, but emphasise the need to develop democratic competences in children through a specific kind of participation. The kind of participation invoked in these studies is not mere presence or involvement, but articulate that it is participation in decision-making processes and deliberative democratic processes.
Moreover, certain articles concerned with health promotion tend to emphasise these same points, i.e. that children should be actively involved in decisions about their own health and wellbeing (Simovska 2007). These studies quite often have an explicitly normative agenda, which does not correspond with the BUK-framework. But the action component and the implications for political action are conceptualised in these articles.

According to the BUK programme, ‘child and youth competence development refers to those processes and mechanisms that to varying degrees, and as a result of human activity, enable children and youth to participate fully in social practices in various contexts and to reach specific goals and master specific tasks associated with participation in these practices’ (BUK: 7). Competence development has three main components: 1) acquisition of identities, 2) acquisition of knowledge and abilities, and 3) develop readiness to act in different practices and contexts. The latter component has a transformative meaning, i.e. it emphasises the possibility for change. In light of the above said, the BUK programme makes clear that competence development should not be understood as mere assimilation to the norms of a given practice or context. This is also expressed by reference to Giddens’ ‘double contingency’ claim (BUK: 7), which protects the argument from the claim that competence development is but an adjustment to various societal and economic macro-norms, i.e. one-way socialisation. Competence development implies both socialisation, i.e. the acquisition of identities, values, social norms and ideology, but also a ‘readiness to act in different practices and contexts’. However, if identities are generated through participation in these practices and contexts, and if identities ‘legitimise’ and ‘provide direction for action’ (p 28), then it would be fair to ask how these identities can be critically reflected upon, if at the same time they have a legitimising and guiding function. This is the Kantian question, i.e. “How is it possible to critically investigate reason, if this critical investigation is performed by reason itself”? The BUK programme emphasises that children and young people are active subjects in their competence development (and thereby in their identity development), and they therefore have an ability to negotiate and possibly contest the demands and goals that define competence in local settings. Therefore, in light of the literature reviewed on citizenship education, political competence, deliberative democracy and participation in decision-making processes, one might ask whether the transgression of formative identities and ideologies could be emphasised further in the BUK programme. The texts on citizenship education, civic participation, and democratic citizenship may add conceptual strength to the third component of competence development in the BUK programme. These texts express the idea that competence development is not merely a question of children and young people’s adaptation to existing ideologies, values, identities, and contexts, but also the ability to challenge and transgress existing identities, to deliberate about the rules of involvement. For example, children’s influence on decision-making processes as well as participation understood as children and young people’s influence on the rules of organisation. The question raised in light of these ideas concern not merely children and young people’s ability and skills to participate, as well as their readiness to act in these contexts and practices, but also the question of which parts of the contextual practices are accessible to participation for children. This is expressed in the literature as degrees or levels of participation.

In light of the above said, the BUK-programme delineates three central ‘societal arenas’ (politics, professional fields and scientific disciplines) where knowledge is produced, applied and organised. However, the above mapping delineated another societal arena that appears to be central to children and young people’s participation and competence development, which is civil society. A number of articles
introduce an idea of citizenship education, or civic education, or sometimes political education, and the question is whether civil society is an arena that should or could exist in its own right as an arena for the organisation, application and production of knowledge concerning participation and competence development of particularly young people. This societal area might of course be covered by the three domains mentioned already (since it is partly covered by leisure activities and after-school programmes, by the political level understood in abroad sense, and importantly, by various professionals who act as facilitators of participation and citizenship competence for children and young people. Nevertheless, in the reviewed material, civil society seems to be an area on its own that fosters as well as demands children’s and young people’s competence and participation.

Moreover, the BUK programme identifies seven fields of practice for child and youth participation. Family practices, Peer practices, Media practices, Preschool, practices, School practices, and two professional practices which are Social work and Psycho-social health. These fields of practice partly overlap and are not exhaustive. The findings in the mapping and the literature review above are defined with respect to the content. These disciplines, research areas or subjects are:

- Disability & disorder
- Health
- Physical, sensory, and motor skills/abilities
- Physical education, sport
- Leisure, extracurricular or after-school-activities
- Professionals’ competences to take care of children
- Family
- Education (informal as well as formal)
- Social (child protection, child welfare, citizenship education, social work, civic participation)
- Child or youth development
- IT and technical competences (yielded very few hits)
- Methodological or ethical questions regarding the use of children in research (few hits)

This is a (generalised) list of the subjects, disciplines or research fields that appeared after a search on children & young people, competence and participation. Most of them fit into the list provided by the BUK programme, but they also cut across the categories thus provided. Basically it is a different way of conceptualising the fields of practice that the identified literature covers, i.e. a focus on the subjects or content of the literature.

The findings in the quantitative and qualitative literature review support the BUK-programme’s attempt to link participation and competence (development) conceptually and theoretically. In much of the reviewed literature that draws on similar conceptual and theoretical sources of inspiration as the BUK-paper, only the concept of participation is explicitly used and applied. The correlations between competence and participation identified here gives weight to the theoretical attempt to explicitly link these concepts, because articles concerning children’s participation (influence, involvement etc.) do not very often explicitly connect participation with the concept of competence. For example, the literature reviews identified in this search mostly connect ‘children & young people’, ‘participation’ with a specific subject area (for example ‘disabled children’s participation’, or ‘young people, citizenship education and participation’).
The above mapping and review also have methodological implications. The ambition to search across and map out potentially all the various research fields that apply concepts of children and young people, competence and participation has posed serious challenges to the methods used in this work. Systematic literature reviews normally delineate one or a few research fields (for example schools and health) and apply various concepts of participation or competence as a further search criterion. This makes it possible to be very detailed in the review process as well as in the subsequent analyses. The search across a large number of research fields made it difficult to focus in-depth on a number of specific uses of the central concepts and at the same time to systematically assess all the different fields that occurred in the search. The first criterion of selection, therefore, had to do with selecting only the search hits that included either the subject ‘participation’ or ‘competence’. Moreover, when the aim was to seek out various definitions and uses of these concepts, as well as the relations between these concepts, across a range of research fields, then there were many variables that needed to be cross-referenced. Therefore, a statistical design for the overall mapping of these various texts was chosen as a method. The statistical methods used made it possible to correlate all the 39 constructed variables, which gave a hint of the patterns inherent in the material. Using first a statistical approach made it difficult to go in depth with the articles, so the results appear as overall, general patterns. It was furthermore difficult to transfer these statistically generated patterns to a qualitative design, because the general results do not necessarily correspond with a group of individual articles. However, the qualitative analysis provides an in-depth analysis of the different ways in which participation and competence are connected.

The purpose of the mapping and review was to search across many different fields, and not only analyse the articles that were conceptually very explicit about participation and competence development, but also to analyse articles that used these concepts in a less specific and explicit way. This presents some methodological problems, because the conceptual core of the main concepts had to be interpreted and extracted from the texts and from the practices in which these concepts are embedded. The strengths of this research focus, on the other hand, are that they highlight many different implicit as well as explicit conceptualisations of the relation between participation and competence.

Conclusion and further challenges
First, roughly 3500 references were identified using the search criteria described in the beginning of this report concerning children, young people, participation and competence. Among those 3500 references, 260 were specifically categorised as ‘participation’ and ‘competence’, and these texts were chosen for a review of the abstracts. Based on two pilot searches (one on title and another on ‘competence development’ instead of the broader ‘competence’), a number of concepts were provisionally defined, including six different aspects of competence, five different aspects of participation, and various causal connections between those concepts. Moreover, age ranges, status concerning education, and finally fourteen different areas, subjects, or disciplines were defined.

Using SPSS to describe the variation among the 260 abstracts, the three clusters were identified through a cluster analysis. Then various aspects of those clusters were examined through more detailed statistical correlations, which revealed a number of more nuanced associations and differences. The first cluster focussed on pre-schoolers and school-age children, on disability, ability, participation and competence difficulties, involvement, and a connection between competence and participation indicating that various difficulties (learning difficulties, disability, diseases, impairment, lack of skills, lack of ability) prevent
participation. Moreover, this cluster is associated with physical, sensory or motor issues, with health issues, and with disability studies / impairment / disease / disorder. The second cluster focusses primarily on the age group adolescents. It is mainly concerned with ‘skills’ and competence development, i.e. various contexts in which young people acquire skills, and it is primarily a matter of participating in various practices, thereby developing, learning, acquiring certain skills. These may be social skills, language skills, academic skills, physical or athletic skills, self-regulation skills etc. This cluster is associated with physical education such as sport, with leisure activities and participation in after-school activities, as well as school based education. It comprises both informal and formal education. The third cluster, like the second cluster, focusses mostly on adolescents, but comprises mostly the literature that was categorised as informal education. These articles are generally associated with development of participation as well as with competence development, and typically apply both concepts of competence and participation, which are reciprocally connected. Moreover, the concepts of competence and participation are therefore dynamically linked, and the context seems to play a great role in the definition and use of these concepts. These articles are likely to imply influence, involvement in decision-making processes, feeling of participation, and often concern the areas youth development, education, citizenship education, social welfare etc. Concepts such as life skills, social skills and competence, capability, civic participation, relational skills, self-regulation skills, and interactional skills are typically associated with this third cluster.

The qualitative analysis follows up on the overall picture established through the cluster analysis, and elaborates it. 28 articles were chosen for further in-depth analysis – an analysis that focussed on 1) the connection between competence and participation, participatory competence, 2) disability and participation difficulties, 3) various forms of learning and education, i.e. articles implying that participation leads to skill or competence development, 4) various aspects of competence, 5) Dynamic and contextual relations between competence and participation, and 6) the capabilities approach used as a theoretical framework for evaluating children’s and young people’s participation. There are of course many other interesting themes or issues among the 260 articles that were not included in the qualitative analysis, and which would have deserved more attention. The focus of the qualitative analysis was on the relation between competence and participation, and it therefore had to cover a variety of different conceptualisations of this relation, which have been presented above.

The use of a combination of quantitative and qualitative methods in this literature review is not without controversies. No specific area of research is chosen, and therefore the report has focussed on a wide range of research areas, disciplines or subjects. It thus aims for a very broad mapping. At the same time it suggests the possibility of going in depth, qualitatively with a selection of articles within each category found. This method proved to be inefficient with regards to transferring the perspective to a qualitative dimension of the articles. As described above, the statistical features identified do not necessarily correspond with the logic of the individual articles (as described above). It is difficult to cover such diverse fields in a qualitative analysis. Typically, a systematic literature review would focus on one or two specific fields, for example on ‘learning disabilities’ or on ‘health promotion’, and chose this subject in connection with the search terms ‘children and youth’, and ‘competence’ or ‘participation’. Therefore, distinct traits of this or these two areas could normally be identified and categorised qualitatively, with the sufficient use of examples in an in-depth study. The area covered by this search is too wide to examine meaningfully in a qualitative, in-depth analysis. However, the statistical tools are useful for mapping out the variation, the characteristics and differences in the material. It sorts out from a general perspective these differences,
and suggests many different ways of categorising the material. It is up to the readers, then, to focus in on one or more of the categories, theoretical problems, distinctions or connections that have been mapped out.

Moreover, the above analysis has not least focussed on conditions of participation and competence development, or more accurately the problems, difficulties, deficits, and challenges associated with participation. The disability perspective illuminates the conditions that enable or disable children and young people’s participation and competence development. This perspective is suggested as a contribution to the way children and young people’s participation and competences could be investigated in the Buk centre. The BUK-programme identifies processes and conditions of in- and exclusion, of marginalisation, of dysfunctional behaviour etc. But it is argued that a study of these conditions may contribute further to developing understandings (and definitions) of participation and competence development, because it is precisely in such cases (of disability, competence and participation difficulty, incompetence, lack of skills etc.) that fundamental aspects of these concepts can be highlighted. If we want to study social competence, we might want to begin by studying autism, and if we want to focus on attention activity as conditions for learning, we might want to study children with attention hyperactivity deficit disorder. This, of course, presupposes that the difficulties, disabilities or incompetence can be perceived (by someone) as troublesome, hindering participation and competence development. And the individuals who are disabled are not necessarily able to perceive the difficulty themselves. Amartya Sen describes this as ‘the problem of entrenched deprivation’ (Sen 1992: 55). A person deprived of resources may not notice his own deprivation. It therefore sometimes takes an effort to disclose the inequalities structuring the normal patterns of participation, when children, professionals and politicians alike perceive such inequalities of participation and competence development as a natural occurring order. And, unfortunately, scientific knowledge production easily ends up reinforcing, stabilising and naturalising those patterns, too.

Importantly, it has been illustrated that the initial idea of connecting the concepts participation and competence with regards to the area of children and young people has proved to be a fruitful idea. Many of the articles that are contextual, multi-contextual, concerning development of competence or participation, and which concern informal learning processes and social issues, are more likely to apply only the concept of participation. There seems to be a field opening up, where the connection and dynamic interplay of these two concepts can contribute to the research fields that already exist. In the literature mapped out above it seems as if these subjects are covered conceptually and theoretically, mainly with the concept of participation, and to a lesser degree with the connection of participation and competence development. In the future, studies that aim to conduct research on children and young people, focussing on the links between participation and competence development would be able to explore a field which is so far only scarcely cultivated.

Of interest to scholars working within the fields mapped out above it must also be mentioned that there has been a fifty per cent increase in the number of populations within the past eleven years. This is a real increase in spite of the overall increase of publications within the databases used in the above literature search. It seems, therefore, that there is a dawning interest, or at least a growing use of the concepts competence and participation within the area of children and young people research.

Last, a few methodological problems need to be discussed. Only the texts treating all three of the concepts in question (Children & Young People, Competence, and Participation) were included in the analysis.
Therefore, texts that focus only on children and participation, or children, participation and learning, for example, were not included. This excludes a large amount of texts that would otherwise have applied other terms for competence development, such as learning or achievement, or other concepts of competence, for example literacy. The purpose of the literature mapping and review was among other things to bring conceptual inputs to the BUK research centre regarding how other research fields conceptualise competence and participation. If the review had included abstracts and articles concerning solely children and participation, or children and competence development, then other concepts of participation and competence would undoubtedly have appeared in the search. But the very general aim and broad focus of the literature search (which did not exclude any specific research fields or subjects in advance) made it impossible to cover all articles that were solely concerned with ‘children/young people and participation’, or ‘children/young people and competence’. The combination of the three main concepts (children/young people, competence and participation) did after all yield approximately 3500 hits.

Regardless of what the above search and analyses have shown, it is tempting to end this report by formulating some general challenges that deserve attention in the on-going work with the elaboration of the theoretical framework in BUK-senterets’ research programme.

The first challenge concerns the concept of participation in the BUK research programme. ‘Competence development must be understood in a larger context and should be associated with belonging, identity and meaning making. In this framework “participation” and “development” are major principles, that is, there is a focus on the individual’s desire to participate in and belong to social communities of practice, which are experienced as meaningful’ (BUK: 8, emphasis added). The understanding of competence development thus hinges on the understanding that individuals have a desire to participate, and departs from this need for identity and meaning-making. It is undeniably true that this is a defining aspect of most human beings, but children and young people (as well as other human beings) nonetheless from time to time demonstrate a non-willingness to participate, a non-desire to participate, or a disability to participate. This is the object of focus in much of the reviewed literature. Non-ability to participate can be overcome by compensational means, professional practices that aim to include these marginalised children and young people. But what happens in cases where children or young people simply do not desire to participate? In these cases the non-desire to participate constitutes an obstacle to the professional practices that are designed to facilitate the competence development of these children or young people, as well as to the academic literature describing these cases. These children appear to be stultified and to lack the social skills/competences that are needed for participating and for developing positively. This non-desire to participate is typically described as ‘lack of motivation’ or ‘negative development’, and these children and young people portray signs of dysfunctional behaviour. But the question is whether there are other possible interpretations of such phenomena. Some of the reviewed literature describes cases of young people who do not desire to participate, simply because they do not identify with the goals and values that characterise the community or institution (Watts & Bridges, 2006, Baker and Cohen 2008). In Watts and Bridges article adolescents’ non-desire to enter into higher education programmes is described as valuable. The young people still have the desire to belong, and to develop identity, but they do not follow societal demands, and in some cases the internalised societal demands, resulting from the overall positive societal perception of education. As a result of this, inclusion and participation is almost always interpreted in scientific literature as a positive event. However, the non-desire to participate is presumably something that most children and young people feel from time to time (the lack of desire to go to school, the lack of desire to be involved in after-
school activities, the non-desire to be a part of the family, etc.), and is an aspect of participation and competence development that deserves more attention. As described above, this non-desire is usually framed as barriers, either physical barriers (disability, impairment, learning difficulties, obesity), as mental barriers (negative identity development, motivation problems, immaturity, denial etc.), as socio-economic barriers (poverty, low social capital, marginalisation, exclusion etc.), or more often as a combination of these three perspectives. All in all, such a non-desire is generally understood as dysfunctional. And the BUK-programme therefore has as one of its focus areas the processes by which children and young people are excluded and marginalised, therefore focussing on how it might be possible to enable and facilitate children and young people’s participation. But it might be worth asking whether the non-desire could be framed as something other than dysfunctional behaviour, whether it could play a constructive role regarding the question of defining the connection between participation and competence development. It would not be impossible to integrate such an aspect of competence and participation in the conceptual framework of the BUK-programme as it is.

Furthermore, the programme identifies a number of specific fields of practice. These are not exhaustive or mutually exclusive. It is stated that these fields may be constructed otherwise in the individual research projects of the individual members of the Centre. The literature search may not add significantly to the conceptualisation of these different fields, but it is possible that it may have identified a few areas of research of importance, which before were included under an all-encompassing heading, or differentiated otherwise. Regardless of this, I would like to mention a central concern with regards to these specific fields of practice. The conceptual core of the BUK research programme is formulated in a general and abstract way (competence development, context, participation, practice, complexity). It is internally consistent, and the concepts are broad enough to cover many different practices. As such, the concepts are also very general and abstract. The question is, whether these concepts change their meaning (and definitions) when they are applied to specific fields or practices? They definitely do, which is also indicated in the BUK research programme, i.e. that these concepts are flexible enough to be transferred across different fields of practice. Nevertheless, the conceptual core is formulated as a coherent unity, although it changes over time as new fields are studied with this framework in mind, and as a consequence of new experiences made. But the concepts relate to each other in the same, abstract way in the BUK-programme, apparently irrespective of the practice fields in which they were coined, termed or emerged. As a reader, one is not sufficiently aware how a range of practices have contributed specifically to the development of this, abstract, theoretical framework. Does it matter if ‘mastery of the environment’ happens in infants in controlled experiments, or among teenagers in after-school activities? It seems that the contextual premise is valid for the concepts applied within the various fields of practice, but not for the conceptual framework itself. One might ask oneself whether multi-contextual concepts of competence development and participation, defined in abstract solitude from the various fields in which they appear in practice, can constitute an abstract, theoretical framework and be ‘applied’ in different fields. One asks oneself, what is the context of these concepts? Of course, the theoretical framework draws on other scholars and theoretical traditions, and the BUK-programme makes clear where theoretical and conceptual inputs come from, but as such, the theoretical field constitutes a field of its own. Is the BUK-programme a practical reasoning? And if so, what are the fields of practice that it draws its understandings from? What are the historical, social and cultural roots that conditioned these theoretical thought? Are there historical conflicts within child and youth research that have motivated the authors to take this particular theoretical and
conceptual approach? Is the BUK-programme a response to, for example, a dominating ‘education discourse’ with regards to child research? If so, what are the claims that the BUK-senter means to counter? Is the concept of ‘context’ a response to child and youth research that has previously been carried out under experimental, laboratory conditions, supposedly impermeable to everyday life or to education research operating with concepts of universal skills? And if so, why is the status of the concepts in the BUK-programme as counterarguments not revealed for the reader? Do such conceptual struggles influence the theoretical framework? In any case, it seems strange to emphasise the meaning of participation and context, without also taking a conceptual consequence of this position. Are the concepts in the BUK-framework the only concepts that are not contextually defined, or where the context does not have to be scrutinised? These are questions for further reflection.

Finally, when trying to grasp what it is that enables children and young people (and human beings in general) to participate and to develop competence, or to exercise the competence to participate, we are led, ultimately, back towards some source of power, or potential, which we can neither capture with a scholastic definition, nor with a sufficient amount of examples. Ability or capacity (to perform, to develop, to acquire, to master, to do, to be) is always conditioned, and it is the (unequal) conditions of participation and subsequently competence development that my focus on barriers and disability above point towards. Therefore, and importantly, this perspective is linked to the existence of inequalities among children and young people with regards to the distribution of such powers (capabilities) to participate. This is why Amartya Sen set out to re-examine inequality (Sen 1992) in his capabilities approach.
Literature


Howie, LaJeana D; Lukacs, Susan L; Pastor, Patricia N; Reuben, Cynthia A; Mendola, Pauline (2010). 'Participation in Activities outside of School Hours in Relation to Problem Behavior and Social Skills in Middle Childhood'. Journal of School Health 80. 3: 119-125.


King, Gillian; McDougall, Janette; DeWit, David; Hong, Sungjin; Miller, Linda; et al. (2005). ‘Pathways to children's academic performance and prosocial behaviour: Roles of physical health status, environmental, family, and child factors’. *International Journal of Disability, Development and Education* 52. 4: 313-344.


Pedersen, Sara; Seidman, Edward; Yoshikawa, Hirokazu; Rivera, Ann C.; Allen, LaRue; et al. (2005). ‘Contextual Competence: Multiple Manifestations Among Urban Adolescents’. American Journal of Community Psychology 35(1-2): 65-82.


Appendix 1 – Results of literature searches on title and abstract


Anaby, Dana; Law, Mary; Hanna, Steven; Dematteo, Carol. ‘Participation following pediatric acquired brain injury and some inherent problems with outcome studies’. Developmental Medicine & Child Neurology 54. 4 (Apr 2012): 339-346.


Austin, Joan K. ‘Ethical issues related to the increased emphasis on children participating in research’. Chronic Illness 2. 3 (Sep 2006): 181-182.

Bagatell, Nancy; Mirigliani, Gina; Patterson, Chrissa; Reyes, Yadira; Test, Lisa. ‘Effectiveness of therapy ball chairs on classroom participation in children with autism spectrum disorders’. American Journal of Occupational Therapy 64. 6 (Nov-Dec 2010): 895-903.


Burton, Debbie; Smith, Margaret; Woods, Kevin. ‘Working with teachers to promote children's participation through pupil-led research’. Educational Psychology in Practice 26. 2 (Jun 2010): 91-104.

Busseri, Michael A; Costain, Kelly A; Campbell, Kelly M; Rose-Krasnor, Linda; Evans, Jennifer. ‘Engagement in sport and identity status’. Journal of Adolescence 34. 5 (Oct 2011): 1087-1091.

Busseri, Michael A; Rose-Krasnor, Linda; Willoughby, Teena; Chalmers, Heather. ‘A Longitudinal Examination of Breadth and Intensity of Youth Activity Involvement and Successful Development’. Developmental Psychology 42. 6 (Nov 2006): 1313-1326.


Carter, Erik W; Swedeen, Beth; Walter, Martha J; Moss, Colleen K; Hsin, Ching-Ting. ‘Perspectives of Young Adults with Disabilities on Leadership’. Career Development for Exceptional Individuals 34. 1 (May 2011): 57-67.


Chantler, Tracey E. A.; Lees, Amanda; Moxon, E. Richard; Mant, David; Pollard, Andrew J.; et al. ‘The role familiarity with science and medicine plays in parents’ decision making about enrolling a child in vaccine research’. Qualitative Health Research 17. 3 (Mar 2007): 311-322.


Clarke, M T; Newton, C; Griffiths, T; Price, K; Lysley, A; et al. ‘Factors Associated with the Participation of Children with Complex Communication Needs’. Research in Developmental Disabilities: A Multidisciplinary Journal 32. 2 (Mar 2011): 774-780.


Curtin, Michael; Murtagh, Jane. ‘Participation of children and young people in research: Competence, power and representation’. The British Journal of Occupational Therapy 70. 2 (Feb 2007): 67-72.

Curtin, Michael; Murtagh, Jane. ‘Participation of children and young people in research: Competence, power and representation’. The British Journal of Occupational Therapy 70. 2 (Feb 2007): 67-72.

da Cruz Benetti, Silvia Pereira; Roopnarine, Jaipaul L. ‘Paternal Involvement with School-aged Children in Brazilian Families: Association with Childhood Competence’. Sex Roles 55. 9-10 (Nov 2006): 669-678.


Dixon-Woods, Mary; Young, Bridget; Ross, Emma. ‘Researching chronic childhood illness: The example of childhood cancer’. Chronic Illness 2. 3 (Sep 2006): 165-177.

Doherty, William J.; Erickson, Martha Farrell; LaRossa, Ralph. ‘An intervention to increase father involvement and skills with infants during the transition to Parenthood’. Journal of Family Psychology 20. 3 (Sep 2006): 438-447.


Dunn, Janice Causgrove; Dunn, John G. H. ‘Psychosocial Determinants of Physical Education Behavior in Children With Movement Difficulties’. Adapted Physical Activity Quarterly 23. 3 (Jul 2006): 293-309.


Fleming, Jennifer L; Sawyer, L Brook; Campbell, Philippa H. ‘Early Intervention Providers’ Perspectives about Implementing Participation-Based Practices’. Topics in Early Childhood Special Education 30. 4 (Feb 2011): 233-244.

Fletcher, Anne C.; Nickerson, Pamela; Wright, Krisrie L. ‘Structured Leisure Activities in Middle Childhood: Links to Well-Being’. Journal of Community Psychology 31. 6 (Nov 2003): 641-659.


Frith, Lucy. ‘Researching chronic childhood illness: Autonomy or beneficence?’. Chronic Illness 2. 3 (Sep 2006): 178-180.


Guillet, Emma; Sarrazin, Philippe; Fontayne, Paul; Brustad, Robert J. ‘Understanding Female Sport Attrition in a Stereotypical Male Sport within the Framework of Eccles's Expectancy-Value Model’. Psychology of Women Quarterly 30. 4 (Dec 2006): 358-368.


Howie, LaJeana D; Lukacs, Susan L; Pastor, Patricia N; Reuben, Cynthia A; Mendola, Pauline. ‘Participation in Activities outside of School Hours in Relation to Problem Behavior and Social Skills in Middle Childhood’. Journal of School Health 80. 3 (Mar 2010): 119-125.


Kay, Tess; Bradbury, Steven. ‘Youth sport volunteering: developing social capital?’ Sport, Education and Society 14. 1 (Feb 2009): 121-140.


King, Gillian; McDougall, Janette; DeWit, David; Petrenchik, Theresa; Hurley, Patricia; et al. ‘Predictors of change over time in the activity participation of children and youth with physical disabilities’. Children's Health Care 38. 4 (Oct 2009): 321-351.


Kirschman, Keri; Brown, Roberts, Michael C; Shadlow, Joanna O; Pelley, Terri J. ‘An Evaluation of Hope Following a Summer Camp for Inner-City Youth’. Child and Youth Care Forum 39. 6 (Dec 2010): 385-396.


Knox, Virginia; Cowan, Philip A; Pape Cowan, Carolyn; Bildner, Elana. ‘Policies That Strengthen Fatherhood and Family Relationships: What Do We Know and What Do We Need to Know?’ Annals of the American Academy of Political and Social Science 635. 1 (May 2011): 216-239.

Koelch, Michael; Singer, Hanneke; Prestel, Anja; Burkert, Jessica; Schulze, Ulrike; et al. ‘"...Because I am something special" or "I think I will be something like a guinea pig": Information and assent of legal minors in clinical trials—Assessment of understanding, appreciation and reasoning’. Child and Adolescent Psychiatry and Mental Health 3 (Jan 2009).


Law, Ben M F; Shek, Daniel T L; Ma, Cecilia M S. ‘Exploration of the Factorial Structure of the Revised Personal Functions of the Volunteerism Scale for Chinese Adolescents’. Social Indicators Research 100. 3 (Feb 2011): 517-537.

Law, Mary; Anaby, Dana; DeMatteo, Carol; Hanna, Steven. ‘Participation patterns of children with acquired brain injury’. Brain Injury 25. 6 (Jun 2011): 587-595.


Libby, Margaret; Sedonaen, Maureen; Bliss, Steven. ‘The Mystery of Youth Leadership Development: The Path to Just Communities’. New Directions for Youth Development 109 (Apr 2006): 13-25.


Livingstone, Sonia; Bober, Magdalena; Helsper, Ellen J. ‘Active participation or just more information? Young people’s take-up of opportunities to act and interact on the Internet’. Information, Communication & Society 8. 3 (2005): 287-314.


Lonnemann, Jan; Linkersdörfer, Janosch; Heselhaus, Vera; Hasselhorn, Marcus; Lindberg, Sven. ‘Relations between balancing and arithmetic skills in children—Evidence of cerebellar involvement?’. Journal of Neurolinguistics 24. 5 (Sep 2011): 592-601.

MacNamara, Aine; Collins, Dave; Bailey, Richard; Toms, Martin; Ford, Paul; et al. ‘Promoting Lifelong Physical Activity and High Level Performance: Realising an Achievable Aim for Physical Education’. Physical Education and Sport Pedagogy 16. 3 (2011): 265-278.


Majnemer, Annette; Shikako-Thomas, Keiko; Chokron, Nathalie; Law, Mary; Shevell, Michael; et al. ‘Leisure Activity Preferences for 6- To 12-Year-Old Children with Cerebral Palsy’. Developmental Medicine & Child Neurology 50. 10 (Oct 2008): 751-758.

Majnemer, Annette; Shikako-Thomas, Keiko; Chokron, Nathalie; Law, Mary; Shevell, Michael; et al. ‘Leisure Activity Preferences for 6- To 12-Year-Old Children with Cerebral Palsy’. Developmental Medicine & Child Neurology 52. 2 (Feb 2010): 167-173.


Mason, Christine; Field, Sharon; Sawilowsky, Shlomo. ‘Implementation of Self-Determination Activities and Student Participation in IEPs’. Exceptional Children 70. 4 (2004): 441-451.


Mitchell, Wendy; Franklin, Anita; Greco, Veronica; Bell, Margaret. ‘Working with children with learning disabilities and/or who communicate nonverbally: Research experiences and their implications for social work education, increased participation and social inclusion’. Social Work Education 28. 3 (Apr 2009): 309-324.


Morris, Christopher; Kurinczuk, Jennifer J.; Fitzpatrick, Raymond; Rosenbaum, Peter L. “‘Do the abilities of children with cerebral palsy explain their activities and participation?’ Errata.’ Developmental Medicine & Child Neurology 49. 2 (Feb 2007): 122.


Mueller, Megan Kiely; Phelps, Erin; Bowers, Edmond P; Agans, Jennifer P; Urban, Jennifer Brown; et al. ‘Youth development program participation and intentional self-regulation skills: Contextual and individual bases of pathways to positive youth development’. Journal of Adolescence 34. 6 (2011): 1115-1125.

Nair, Sudha; Morrison, Mary F. ‘The evaluation of maternal competency’. Psychosomatics: Journal of Consultation Liaison Psychiatry 41. 6 (Nov-Dec 2000): 523-530.


Ostergren, Carol S; Riley, David A; Wehmeier, Jenny M. ‘Better Kid Care Program Improves the Quality of Child Care: Results from an Interview Study’. Journal of Extension 49. 6 (Dec 2011): 8.


Pedersen, Sara; Seidman, Edward; Yoshikawa, Hirokazu; Rivera, Ann C.; Allen, LaRue; et al. ‘Contextual Competence: Multiple Manifestations Among Urban Adolescents’. American Journal of Community Psychology 35. 1-2 (Mar 2005): 65-82.

Pelegrina, Santiago; Garcia-Linares, M. Cruz; Casanova, Pedro F. ‘Adolescents and their parents’ perceptions about parenting characteristics. Who can better predict the adolescent’s academic competence?’. Journal of Adolescence 26. 6 (Dec 2003): 651-665.


Phillipson, Sivanes; Phillipson, Shane N. ‘Academic expectations, belief of ability, and involvement by parents as predictors of child achievement: A cross-cultural comparison’. Educational Psychology 27. 3 (Jun 2007): 329-348.


Pomerantz, Eva M; Ng, Florrie Fei-Yin; Wang, Qian. ‘Mothers’ Mastery-Oriented Involvement in Children’s Homework: Implications for the Well-Being of Children with Negative Perceptions of Competence’. Journal of Educational Psychology 98. 1 (Feb 2006): 99-111.


Pridham, Karen; Brown, Roger; Clark, Roseanne; Limbo, Rana K.; Schroeder, Michele; et al. ‘Effect of Guided Participation on Feeding Competencies of Mothers and Their Premature Infants’. Research in Nursing & Health 28. 3 (Jun 2005): 252-267.

Pridham, Karen; Brown, Roger; Clark, Roseanne; Limbo, Rana K.; Schroeder, Michele; et al. ‘Effect of Guided Participation on Feeding Competencies of Mothers and Their Premature Infants’. Research in Nursing & Health 28. 3 (Jun 2005): 252-267.

Pridham, Karen; Melby, Janet N.; Brown, Roger; Clark, Roseanne. ‘The contribution of infant, maternal, and family conditions to maternal feeding competencies’. Parenting: Science and Practice 10. 1 (Jan 2010): 18-42.


Randall, Edin T; Bohnert, Amy M. ‘Understanding Threshold Effects of Organized Activity Involvement in Adolescents: Sex and Family Income as Moderators’.


Riggs, Nathaniel R; Bohnert, Amy M; Guzman, Maria D; Davidson, Denise. ‘Examining the Potential of Community-Based After-School Programs for Latino Youth’. American Journal of Community Psychology 45. 3-4 (Jun 2010): 417-429.
Rihtman, Tanya; Tekuzener, Esti; Parush, Shula; Tenenbaum, Alex; Bachrach, Steven J.; et al. ‘Are the cognitive functions of children with Down syndrome related to their participation?’. Developmental Medicine & Child Neurology 52. 1 (Jan 2010): 72-78.


Sakzewski, Leanne; Carlon, Stacey; Shields, Nora; Ziviani, Jenny; Ware, Robert S; et al. ‘Impact of Intensive Upper Limb Rehabilitation on Quality of Life: A Randomized Trial in Children with Unilateral Cerebral Palsy’. Developmental Medicine & Child Neurology 54. 5 (May 2012): 415-423.


Siegel, Carole; Haugland, Gary; Reid-Rose, Lenora; Hopper, Kim. ‘Components of cultural competence in three mental health programs’. Psychiatric Services 62. 6 (Jun 2011): 626-631.


Spence, Susan H.; Donovan, Caroline; Brechman-Toussaint, Margaret. ‘The treatment of childhood social phobia: The effectiveness of a social skills training-based, cognitive-behavioural intervention, with and without parental involvement’. Journal of Child Psychology and Psychiatry 41. 6 (Sep 2000): 713-726.


Stack, Dale M; Serbin, Lisa A; Enns, Leah N; Ruttle, Paula L; Barrieau, Lindsey. ‘Parental Effects on Children’s Emotional Development over Time and across Generations’. Infants and Young Children 23. 1 (Jan 2010): 52-69.


Thirumanickam, Abirami; Raghavendra, Parimala; Olsson, Catherine. ‘Participation and social networks of school-age children with complex communication needs: A descriptive study’. AAC: Augmentative and Alternative Communication 27. 3 (Sep 2011): 195-204.


Unger, Marianne; Faure, Mary; Frieg, Annette. ‘Strength training in adolescent learners with cerebral palsy: A randomized controlled trial’. Clinical Rehabilitation 20. 6 (Jun 2006): 469-477.


Valaitis, Ruta. ”’They don't trust us; we're just kids.” Views about community from predominantly female inner city youth’. Health Care for Women International 23. 3 (Apr-May 2002): 248-266.

Valiente, Carlos; Lemery-Chalfant, Kathryn; Swanson, Jodi; Reiser, Mark. ‘Prediction of children’s academic competence from their effortful control, relationships, and classroom participation’. Journal of Educational Psychology 100. 1 (Feb 2008): 67-77.


116


Wichstroem, Tove; Wichstroem, Lars. ‘Does sports participation during adolescence prevent later alcohol, tobacco and cannabis use?’. Addiction, suppl. Suppl. 1 104 (Jan 2009): 138-149.


Wuанг, Yee-Pay; Su, Chwen-Yng. ‘Correlations of sensory processing and visual organization ability with participation in school-aged children with Down syndrome’. Research in Developmental Disabilities 32. 6 (Nov-Dec 2011): 2398-2407.

Wuанг, Yee-Pay; Su, Chwen-Yng. ‘Correlations of sensory processing and visual organization ability with participation in school-aged children with Down syndrome’. Research in Developmental Disabilities 32. 6 (Nov-Dec 2011): 2398-2407.


