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Article *in* Support for Learning · May 2017

DOI: 10.1111/1467-9604.12156

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Key Educational Factors in the education of students with a medical condition

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Abstract

The education of children with a medical condition represents a unique educational context.

The key educational factors that can help these children continue their education despite the burdens associated with their illness were discussed and analysed by a pool of experts for an EU funded project. In this context, *relationships*, *making sense* and *constructing knowledge*, *assuming roles in front of others*, *metacognition*, *individualities and inter-institutional communication* emerged as the 6 Key Educational Factors (KEF) that are crucial for the education of this vulnerable population. The implications of the KEFs for home and hospital education are discussed, with a particular focus on practices that meet the relational and communicational needs of these children. Specific recommendations for the practice, policy, and research regarding these KEF within this unique educational context are presented.

Keywords: education, children with a medical condition, planning, continuity in education, school attendance, resilience, prevention

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Abstract

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Key Educational Factors in the education of students with a medical condition

Approximately 20% of all school-age children have a significant medical condition and research indicates that this rate will most likely increase, because diseases that were once fatal are now treatable (Compas, Jaser, Dunn, & Rodriguez, 2012; West, Denzer, Wildman, & Anhalt, 2013). In fact, Clay, Cortina, Harper, Cocco, and Drotar (2004) predict that most teachers will interact with a student with a medical condition at some point during their career.

Significant medical conditions can negatively impact several aspects of child development, from comprising academic achievement to reducing quality of life and self-esteem (Kaffenberger, 2006; Needham, Crosnoe, & Muller, 2004; Turkel & Pao, 2007; West et al., 2013). In fact, children with a medical condition often experience extended or sporadic school absences that can require significant educational adaptations (Emerson et al., 2015; Kaffenberger, 2006). Due in part to these absences, the identities of children with a medical condition may be comprised such that they feel different from their peers (A'Bear, 2014).

Within this context, the importance of attending school becomes paramount (Forrest, Bevans, Riley, Crespo, & Louis, 2011; Goldfeld, O'Connor, Quach, Tarasuik, & Kvalsvig, 2015; Lombaert, Veevaete, Schuurman, Hauttekeete, & Valcke, 2006; St Leger, 2014). Formal education for children with a medical condition nurtures a sense making process that reduces loneliness, depression and despair (Ford & Lerner, 1992), and helps them have distal goals (A'Bear, 2014; Ross, 1984) while being predictive of better health and life expectancies (Cutler & Lleras-Muney, 2012; Grossman & Kaestner, 1997; Lee & Jackson, 2015).

School experience analysis of students with a medical condition[1]: A functional approach

Ireys (2014) estimated that there are more than 200 different types of chronic illnesses that may affect school-aged children (e.g., cancer, juvenile idiopathic arthritis, cystic fibrosis, chronic pain, sleep disorders, asthma, diabetes, haemophilia and HIV, and cardiac conditions. Billings, Moos, Miller, & Gottlieb, 1987; Bouaddi et al., 2013; Colegrove & Huntzinger, 1994; Everhart, 2011; Fowler, Johnson, Welshimer, Atkinson, & Loda, 1987; Getch, Bhukhanwala, & Neuharth-Pritchett, 2007; Gorodzinsky, Hainsworth, & Weisman, 2011; Grieve et al., 2011; Kirkpatrick, 2015; McLoone, Wakefield, Butow, Fleming, & Cohn, 2011 Moonie, 2008 #5462). In addition to these plethora of illnesses, research on children with medical conditions covers three additional educational mediators and moderators: country specific culture (e.g., typical social network support, socioeconomic status, psychosocial environment) and support services (e.g., school psychologists, counsellors, and hospital teachers) (Barraclough & Machek, 2010; Fowler, Davenport, & Garg, 1992; Harila-Saari et al., 2007; St Leger, 2014), age (i.e., primary school and middle/high school aged children (Getch et al., 2007; Grieve et al., 2011; Grootenhuis & Last, 2001; Jackson, 2013; McLoone et al., 2011; Taylor, Gibson, & Franck, 2008), and type of school service provided (i.e., home, hospital, mainstream schooling, school re-entry. A'Bear, 2014; Committee on School Health, 2000; L. Hopkins, Wadley, Vetere, Fong, & Green, 2014; Kaffenberger, 2006; McLoone et al., 2011; Shaw & McCabe, 2008; Weiss et al., 2015).

Considering the above issues, adopting a condition-specific approach to studying the school life of children with a medical condition would require not only taking into account different medical conditions (>200) but also the country's specific culture and healthcare system (circa 200), the age cohort of these children (pre-adolescent vs. adolescent) as well as the

[1] We define a student with a medical condition as when, due their medical condition, their school life is limited in some way or when the student is dependent on medical intervention to sustain health.

specific type of school service delivered to the student (e.g., home, hospital, and mainstreaming). The resulting number of combinations makes such an approach cumbersome.

The present article adopts a wider view of the above-mentioned issues surrounding the education of children with medical conditions. Rather than applying a-priori diagnostic labels to determine the characteristics of this population, our functional approach focuses on the meaningful consequences of a medical condition to define population boundaries (Ireys, 2014).

This paper reviews the main school life consequences of living with a medical condition and outlines pedagogical aspects considered crucial to ensure educational continuity for student's with a medical condition. In discussing the above we fully embrace the biopsichosocial concept of health and functioning adopted by the WHO within the ICF framework (World Health Organization, 2007). The ICF represents a shift from a medical model to a biopsychosocial model, as well as a shift from a medical classification of diseases to a classification of components of health and individual functioning (Maxwell, Alves, & Granlund, 2012). In line with this biopsychosocial concept of health and functioning, the question that drives the current perspective article is: "*What are the key social, cognitive and psychological components that allow a student with a medical condition to live a positive school experience?"*

A teacher's perspective

An educator working with students with medical conditions faces a set of challenges that are unusual. Yates et al. (2010) completed a longitudinal research involving 31 children with medical conditions. In this research, healthcare and education professionals emphasised the need to improve knowledge of how best to support these children, particularly in relation to disclosure, meeting social and academic needs, fulfilling student expectations, embracing curriculum flexibility, managing behaviour, and meeting the needs of siblings and classmates.

Education professionals also expressed concern about a minority of children who were experiencing severe social isolation with very little support from families, friends, and their school.

In related research, Eiser and Town (1987) found that teachers' acknowledged having inadequate information regarding how to deal with children with significant medical conditions. The inadequacy of this information is, perhaps, even more interesting given the fact that the foremost recurrent fear for a teacher was coping with medical emergencies that might arise in the classroom. More recently Clay et al. (2004) interviewed 480 teachers and found that even if 98.7% of them reported knowing a student with a medical condition, over 60% of them said they had received no formal training on how to deal with issues related to these needs. These results were later confirmed in a study by Nabors, Little, Akin-Little, and Iobst (2008) who found significant variation in teachers' knowledge of student's medical conditions that depended, in part, on the teacher's specialisation (i.e., mainstream versus special education). In fact, relatively few teachers indicated having sufficient knowledge or feeling confident working with children with a medical condition. In another study based on interviews and focus groups involving students, teachers and parents by A'Bear (2014), teachers frequently discussed not knowing what to expect from students with medical needs and expressed fears about overwhelming them with schoolwork.

These problems have been well outlined by Mourik (2008) who argues that in addition to ordinary teacher competences, a teacher working with children with a medical condition should be able to take into account the child's health-related worries and integrate his/her teaching with the child's health care team. Mourik (2008) concludes that teaching these students requires up-

to-date methodologies and tools in order to motivate the pupil and explain specific subject matters in unusual settings.

Students' subjective experiences

School life narratives of students with a medical condition are scarce (Wakefield et al., 2010). In general, these students report a great variation in the quality and magnitude of help received from teachers, even within the same school (Mukherjee, Lightfoot, & Sloper, 2000; Yates et al., 2010). Students that experience extended or recurrent absences from school and are taught at home often face significant challenges in their social and academic life. These challenges include such things as catching up on missed work, learning gaps due to lack of direct instruction, communicating health issues to teachers and schoolmates, disrupted friendships (Wakefield et al., 2010) that create stress and anxiety (A'Bear, 2014).

Bessell (2001) interviewed 51 children and adolescents with cancer about their school experience (*M* age=12.68). Bessell's findings underscore variation, by age, of the subjective school experience. For instance, 25% of primary school children rated the helpfulness and understanding of their teachers as "poor", 33% as "average", and 42% as "good", while 33% of secondary school students rated the helpfulness and understanding of their teachers as "poor", 48% as "average", and 19% as "good". And yet when school programmes work well, parents, teachers and students recognize that school gives students with a medical condition a sense of purpose and normalcy, a distraction from their medical condition, long-term goals and a social connection (A'Bear, 2014; Boonen & Petry, 2012; L. Hopkins, Green, Henry, Edwards, & Wong, 2014).

Finding a general pedagogical framework for students with a medical condition

Research on teaching effectiveness has provided educational professionals with a relatively clear understanding of the fundamental principles for effective instructional practices (Bulger, Mohr, & Walls, 2002). These principles include empowering student resiliency, learner-centred techniques, attention to the learning process, social learning and school management policies (Alfassi, 2004; American Psychological Association Work Group of the Board of Educational Affairs, 1997; Barber & Mourshed, 2007; D. Hopkins, 2003; McMillan & Reed, 1994; Morrison, Brown, D'Incau, O'Farrell, & Furlong, 2006; Muijs & Reynolds, 2010; Walls, 1999; Wilson & Conyers, 2012).

Given the complexity and sometimes chaotic nature of the life of a child with a medical condition, defining a solid pedagogical and systematic framework for an effective education is crucial (A'Bear, 2014; Cutler & Lleras-Muney, 2006; Feinstein, Sabates, Anderson, Sorhaindo, & Hammond, 2006; L. Hopkins, Green, et al., 2014; Mourik, 2008). Previously discussed research underscores the school's need to develop proper strategies when dealing with students with medical conditions (A'Bear, 2014; L. Hopkins, Green, et al., 2014; Mourik, 2008). Indeed, embracing a systemic approach for the education of children with medical conditions is invaluable (Obiakor, Utley, & Rotatori, 2003; Shaw & McCabe, 2008; Webb, 2010; Yates et al., 2010) as this approach considers the student with the medical condition as well their context and mutual interrelationships (Bronfenbrenner, 2005c; $AUXXX$, 2015; Ford & Lerner, 1992; Grier & Bradley-Klug, 2011; Pais, Guedes, & Menezes, 2012; Wideman-Johnston, 2011; World Health Organization, 2007).

Based on the ICF framework of individual functioning as a function of context, this paper discusses six Key Educational Factors (KEF) that serve as a guide for the education of students

with a medical condition and in the process we compare mainstream schools with home and hospital schools ($AUXXX$, 2014; Closs, 2013; Hull City Council, 2012; Madan-Swain, Katz, & LaGory, 2004).

Building the key educational factors

The six KEF for the education of students with a medical condition were elaborated as part of the *LeHo* (LeHo) project. LeHo is an EU funded project under the Lifelong Learning Programme that is investigating and documenting the role of Information and Computing Technologies (ICT) in improving communication and enabling educational access to children with medical conditions. The KEF were developed in partnership with teachers, school principals, educational psychologists, administrative staff, medical researchers, and sociologists from six different countries (Belgium, Egypt, Germany, Italy, Spain, and United Kingdom).

---- Insert Figure 1 about here ----

The KEF were developed in an eight-stage process (see Figure 1). These stages cover the initial literature review and brainstorming with LeHo project partners, the initial creation of 9 KEF categories and reducing them to the current six, their submission to the EU commission and their subsequent publication on the LeHo project website. The process illustrated in Figure 1 includes three revision cycles. The first was internal with fellow LeHo project members, while the second was completed following the presentation and discussion of the KEF at the 2014 European Hospital Teachers Conference in Bucharest ($AUXXX$ & $AUXXX2$, 2014). The final revision was completed following a detailed discussion with the LeHo project board of experts (an autonomous panel of specialists who, as required by EU commission standards,

independently evaluate the project). This entire process was planned during LeHo project development and approved by the Education, Audiovisual and Culture Executive Agency of the EU commission along with the rest of the LeHo project.

As a result of this process, the 6 KEF for the education of children with a medical condition emerged. The 6 KEF have been given the labels Relationships, Making Sense and Constructing Knowledge, Assuming Roles in Front of Others, Metacognition, Individualities and Inter-Institutional Communication. Each KEF is explained in detail in Figure 2.

---- Insert Figure 2 about here ----

While these KEF may be considered universal components of the education process, the way they are employed is contextual. In the following section, we analyse three typical school contexts encountered by a student with a medical condition ($AUXXX$, 2014; Closs, 2013; Hull City Council, 2012) starting with the hospital school, we then move to the home school and finally to mainstream school re-entry.

Key educational factors in home, hospital education and mainstream school re-entry

KEF in the hospital

The hospital environment was not created to care for the emotional and cognitive development of a child (Bowlby, 1954; Robertson, 1970). Simply put hospitals just don't have those basic elements that are vital for healthy development. These basic elements, which do exist – at least in theory, if not in practice, in mainstream schools, include such things as supporting and creating a sense of belonging, allowing children to have an active and recognised role, acknowledging them as an individual, facilitating sharing and communication, allowing them to

use everyday personal objects and freely manage their personal time, as well as respecting their personal and intimate space (Goffman & Helmreich, 1968; Watzlawick, Bavelas, & Jackson, 1967).

In such a context, proper KEF employment is not an option but a necessity for promoting the positive development of students with a medical condition. For instance, building meaningful relationships (KEF A) with other people present in the hospital ward, and strengthening them with the mainstream schoolmates is a crucial prerequisite for ensuring a successful learning environment. Strengthening relationships can be empowered with an activity using a mediator to sustain communication between the child with medical conditions and his/her school (Canevaro, 2008). A good example of such an activity is the *Panda in my seat*, documented within the LeHo project (LeHo Project, 2015a) and inspired by the "monkey in my chair" project (http://www.monkeyinmychair.org). Parents or teachers of the child with a medical condition provide a stuffed panda that goes to school and represents the absent child. The panda has a backpack that can be used to hold notes from friends or work from teachers, and is taken regularly to and from the absent child and the school by the parents. The kit also includes a teacher's companion guide to help teachers explain to students the situation that their classmate is facing and how this affects the class along with other items that can be utilized by the absent child and/or their classmates. This project is clearly aimed for younger children. Older students can use more sophisticated forms of synchronous or asynchronous communication such as email, forum, interactive learning platforms, conference calls, or social media (Lombaert et al., 2006; Madan-Swain et al., 2004; Zhu & Van Winkel, 2015).

Communication tools like Panda in my seat allow students with a medical condition to take part in social processes of sense making and constructing knowledge (KEF B) as well as assuming active and positive roles (KEF C). This helps make the student feel a sense of belonging to a group of peers, and participating, even if from a distance, in the mainstream class life. By communicating with the student's mainstream school, their prior experiences and personal learning style become known to the home and hospital school educator resulting in a more personalized educational experience for the student with a medical condition (KEF E).

Considering metacognition (KEF D), this can be nurtured in students with a medical condition via specific training (Butler & Mulhern, 2005; Spencer, 2006) and with the use of ICT and distance learning tools (Berizzi, 2016). In fact, this training and ICT tools help students improve their self-control via things like checklists, forms, and discussions resulting in them becoming a more independent learner (Slavin, 2014).

A proper application of inter-institutional communication (KEF F) requires significant organisational effort. In fact, there are different levels of such communication: hospital school with mainstream school, medical staff with mainstream teachers, schools with parents, and so on. Proper communication between these different levels requires an appropriate infrastructure and the adoption of a common communication policy. As an example of the application of such a practice the LeHo project team has identified the use of a "pupil's passport" for students with a medical condition. This passport is a document shared between different stakeholders (i.e., doctors, nurses, home and hospital education teachers, social workers, psychologists) with the aim of exchanging relevant information on the child health and behaviour (LeHo Project, 2015b).

KEF at Home

Because in-hospital treatment of acute illnesses is changing to community-based management of chronic illnesses and disabilities, children are spending less time in hospitals and more time at home (Weller, Minkovitz, & Anderson, 2003). However, being sent home does not mean that one is able to attend school. Home schooling can be provided by one of the child's own mainstream school teachers or by a hospital teacher.

The application of the KEF for students with a medical condition at home are similar to those for students in the hospital, but there are some additional issues to be considered ($AUXXX$, 2006; Lombaert et al., 2006; Shaw & McCabe, 2008). The most problematic issue for children instructed in a home environment is that they are observed and evaluated less frequently than those instructed in a hospital environment (leading to problems with KEFs A-E). Based on the local school system, a teacher can visit a child at home only for a few hours per week, and therefore it isn't easy to deal with emotional or behavioural problems because often the teacher doesn't see them. Additionally, when in the hospital the teacher can meet with other practitioners for consultations, but when working at home the teacher is alone with the child and the family ($AUXXX$ & $AUXXX2$, 2015).

Other problematic issues to consider when teaching students with a medical condition at home include the high costs, low academic motivation, time-management problems, administration problems, and the coordination of tasks between different school settings (KEF F). Sustaining good communication and meaningful relationships between a student with a medical condition and his/her school of origin (KEF A) requires that the child remains interested and engaged in learning and in school life (L. Hopkins, Wadley, et al., 2014), and that the school and classroom keep the absent student in mind, both as a friend and as a learner (Yates et al., 2010). Connection and communication with schoolmates is of paramount importance (KEF A &

B. Asprey & Nash, 2006), as learning is a social process and not an isolated event that takes place only within the individual (Woolfolk, 2015). However, such activity needs to be carefully planned and evaluated, as it can have deep psychological effects both on the child with medical conditions and on the classmates (L. Hopkins, Wadley, et al., 2014; Yates et al., 2010).

KEF in a mainstream class where a student with a medical condition is returning

Qualitative research reveals that attending a mainstream school is linked to a sense of normality and functioning for both parents and children ($AUXXX$, 2008; Helms et al., 2016). When children with a medical condition attend school they feel that they are not just a patient, but also a person with healthy parts, capable of functioning within society (Boonen & Petry, 2012; Kaffenberger, 2006; Wilkie & Jones, 2010).

Literature on school reintegration outlines the importance of preparing the re-entry of the student with a medical condition well in advance. In fact communication with the original school of belonging should be initialised ever since the initial hospitalization of the young person (Madan-Swain et al., 2004) and should continue during homebound education (Boonen & Petry, 2012). If the KEF have been employed during these previous phases of a student with a medical condition's life, school re-entry will be facilitated. The absent student, in fact, will be able to recover an active role (KEF C) within the class, and in the process, reconfirm his classmate friendships (KEF A). In other words, the student will be able to live his education as a contiguous process having connections with his past, continuing in his present and having a projection towards his future (KEF B).

In the mainstream school the KEF can continue to guide teachers attitude towards learning and their ways of teaching. For instance, before engaging students in learning a specific subject, some teachers create a welcoming class climate empowering a system of relationships

and mutual acceptance (see KEF A). In order to create meaningful learning, teachers show students the connection between the subject being learned and everyday life while at the same time showing students the relevance of a particular subject matter and encourage them to actively take part in defining the subject meanings (KEF B). Assuming roles in front of others (KEF C) can be encouraged with tutoring and peer educational activities whereby students engage in the role of teaching and learning from their peers (Cowie & Wallace, 2000; Topping, 1988). Metacognition (KEF D) can be easily integrated into any subject such as reading (Forrest-Pressley & Waller, 2013), writing (Cisotto, 1998), and math (Cornoldi, 1995), and can be used to improve metamemory (Pedale & Santangelo, 2015; Reder, 2014), as well as attentional processes (Marzocchi, Molin, & Poli, 2000), and even help with the management of emotional disorders (Wells, 2002). Inter-institutional communication (KEF F) is normally integrated into any mainstream school organisation as the processes of communicating with other schools and institutions working in the area of child development.

Using the KEF: Implications for consultation services

The KEF can be used at two main levels: institutional and individual. At an institutional level, the KEF can inform school and hospital polices to better answer the developmental and educational needs of children. They may also be used as a guide for the planning of school activities and projects and later as indicators for school activity assessment. The KEF can inform scientific research and may be used in research design or as a tool to explain specific research results. Within the LeHo project, for example, the KEF have been used to plan and conduct research on teacher's perceptions of the use of ICT with students with medical conditions and as a guideline to interpret that data ($AUXXX$ & $AUXXX2$, 2015).

At an individual level a teacher could use these KEF to assess the participation and integration of a student with a medical condition with his own school and later to make personalized plans for the student's involvement in educational activities. At a later stage, the KEF can also be used as a tool to evaluate the student's progress that has occurred at the end of a program. A teacher could, for example, note and discuss how the student perceives the meaning of an activity conducted in connection with his classroom and observe what types of roles and relationships he/she plays. The teacher may then re-perform the assessment at the end of the program to evaluate the advance of the student in terms of integration, roles, and relationships.

Conclusions

The main aim of the KEF is to properly inform and guide school activities for a student with a medical condition. Some of these KEF have already been coded into a developmental scale ($AUXXX$, 2015), while others still need to be.

The KEF do not give information on the content of education, because this is determined on a local basis with specific local cultural values, but they offer a wider scope for the education of students with a medical condition. Education and proper school activities can transform the negative and harmful experience of the child's medical conditions into a formative and empowering voyage through life. While these KEF do not represent a novelty in the field of education, they do represent a set of consistent factors which we think can moderate educational disengagement and outline the conditions for a developmentally-oriented and respectful learning environment. Future research needs to verify if the application of the KEF can help both the school and educators in creating real opportunities for these students to thrive socially and academically. With a solid background and with proper planning, the feeling of unhelpfulness for the student with a medical condition can be replaced with a sense of mastery and belonging.

Acknowledgments

The authors would like to thank all the members of the LeHo project, the LeHo board of experts, and all the hospital teachers who commented on the KEF during their public presentation at the 2014 Hospital Pedagogues of Europe conference.

Disclaimer

The LeHo project (Project number: 543184-LLP-1-2013-1-IT-KA3-KA3NW) is funded with support from the European Union Commission. The content of this document reflects the views only of the authors, and the Commission cannot be held responsible for any use of the information contained herein.

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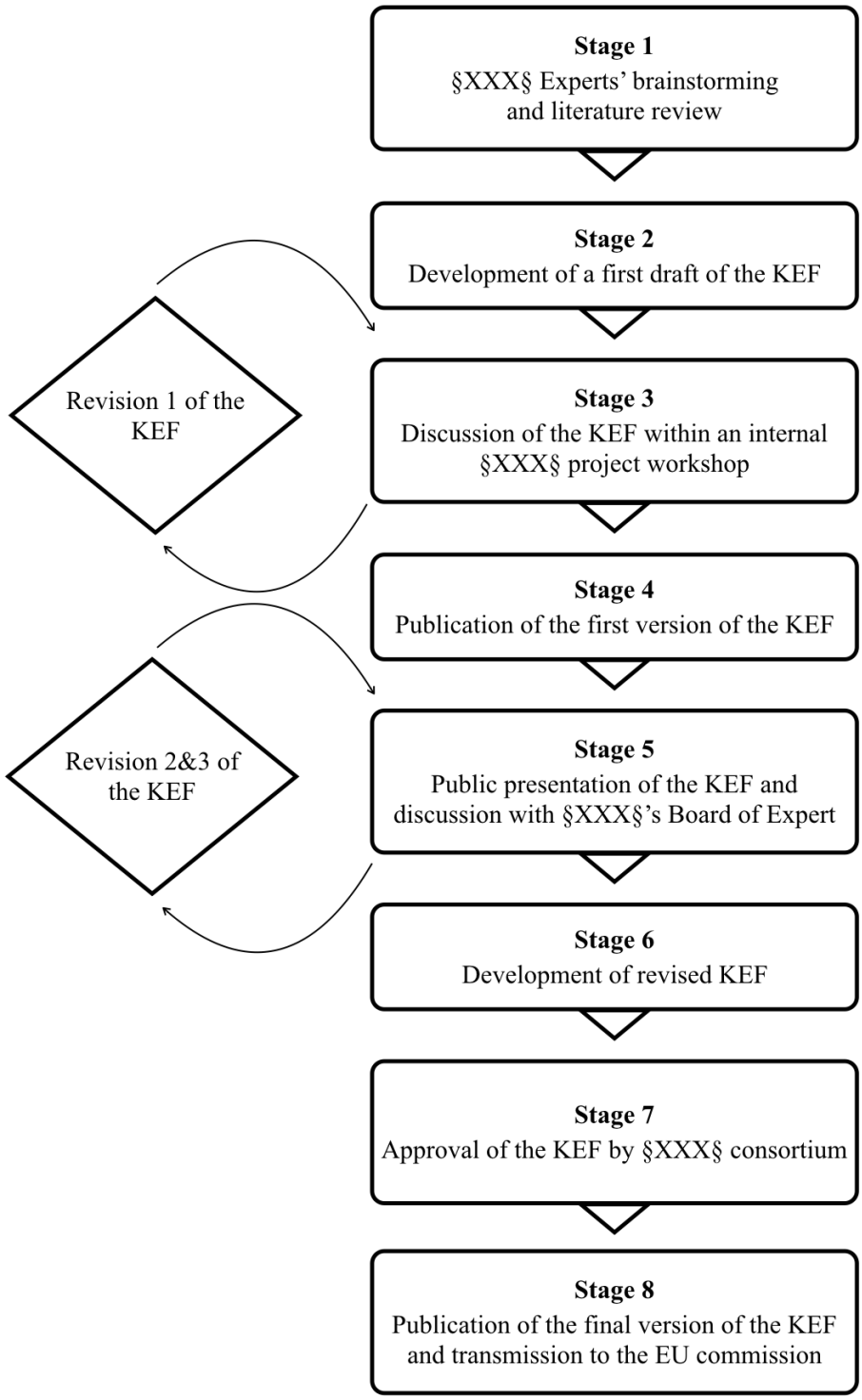

Figure 1, Overview of the development process of the Key Educational Factors

Figure 2

XXX Key Educational Factors for the Education of Children with a medical conditions

The Key Educational Factors

A. Relationships

- Authentic learning always takes place within a system of interactions with others and with cultural artefacts. Shared cultural and relationship mediators can facilitate educational processes at all levels and in any context (Cole, 1998; Rogers, 2001; Salzberger-Wittenberg, Henry, Williams, & Osborne, 1993; Vygotskij, 1978).

- Due to social interactions with more capable peers and individuals, learners are able to perform at a level which goes beyond their individual level of competence (Zone of proximal development, Vygotskij, 1978).

- Education and learning are influenced by proximal (e.g., immediate setting, availability of tools and facilitators, emotional class climate, instructional practices, technology) and distal (culture, systems of beliefs, caring network for the child and his/her parents, communication among different parts involved in education) factors (Bronfenbrenner, 2005b).

B. Making sense and constructing knowledge

- The learning of complex subject matter is most effective when it is based on intentional and active process of constructing knowledge from social interaction, information and experience (American Psychological Association Work Group of the Board of Educational Affairs, 1997; Fosnot, 2005).

- Educational processes should always be perceived as meaningful by all the individuals involved; they are more effective when some kind of temporal continuity and stability is provided (American Psychological Association Work Group of the Board of Educational Affairs, 1997; Bronfenbrenner, 2005a).

- New information should always be linked with existing knowledge and personal experiences in meaningful ways (Ausubel, 1963).

- Individual and group emotional state and motivation are mutually influenced by each other (Bronfenbrenner, 2005c; Lewin, 1931).

C. Assuming roles

- As a result of new educational achievements the child should be able to assume new roles that are recognized by teachers, schoolmates, etc. (Bronfenbrenner, 1979).

- The child should be able to use learned skills to represent and narrate his/her internal and external reality to others (Bruner, 1986).

D. Metacognition

- Thinking, reasoning, organizing, planning controlling should alternate with things like acting, doing, building, drawing, manufacturing. (Beard & Wilson, 2006; Brown, 1975; Flavell, 1979).

- Various materials should be involved in such a process because they activate different thoughts and sensorial experiences (Montessori, 1989, 2004).

- Self-controlled and peer-controlled tools (checklists, forms, discussions) at different stages of the learning process enable the child to become a more independent learner (Milani & Barbiana, 1996; Slavin, 2014).

E. Individualities

- Learners have different strategies, approaches, and capabilities for learning that are a function of prior experience, social climate, motivation, culture, personal learning styles and development. (American Psychological Association Work Group of the Board of Educational Affairs, 1997; Dixon-Krauss, 1996).

- Providing scaffolding and formative assessment facilitates learners in reaching higher goals and increases self-esteem and self efficacy (Bruner, 1986; Stanley, 1996).

- Each learning process should be preceded by a phase of listening and assessing of the child's own history, desires, aptitudes, and culture (Rogers, 1970).

F. Inter-institutional communication

- Schools and parents are partners in the child's education. Family functioning, school effectiveness and student success are empowered by an open and bi-directional communication between school and families and are influenced by school policies, philosophies and practices (Epstein, 1990).

- Educational outcomes are empowered by a good communication and mutual recognition between different institutions directly involved in the child's education, as well as between local and national educational authority (Bronfenbrenner, 2005b) (Neal & Neal, 2013). Such communication must be supported by properly shared accountability tools for monitoring students' progress (Johnson, 2008).

- Student's assessment should include academic abilities as well as personal and social developmental abilities. Shared evaluation and assessment documents should be adopted for these purposes and should be mutually recognised by different educational institutions (Sammons, Hillman, & Mortimore, 1995).