

# **Key Educational Factors**

for the education of children with medical needs

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## Index

Introduction	Errore. Il segnalibro non è definito.
The Key Education Factors:	
A. Relationships	2
B. Making sense and constructing knowledge	2
C. Assuming roles	2
D. Metacognition	3
E. Individualities	3
F. Inter-institutional communication	3
Suggested readings:	4
Defense	4





# LeHo Key Educational Factors

#### Introduction

### The LeHo Project

Throughout Europe, educational initiatives in hospital schools and home education have been designed to improve the engagement of students at risk of having their education disrupted due to their medical needs. Those initiatives often represent meaningful responses to a broad and complex range of educational challenges.

The main aim of the project "Learning at Home and in the Hospital" (LeHo – www.lehoproject.eu, funded with support from the European Commission under the LLP programme) is to investigate and document ICT's roles in improving communication and enabling children with a medical need access to an education. This aim has been reached through the pursuit of the following specific objectives:

- . Outline key educational factors and highlight good practices dedicated to the education and care of students with medical needs;
- . Explore and design ICT-based solutions that enable children in hospital, receiving home therapy or attending school part-time due to illness, to access an appropriate educational provisions;
- . Identify ways in which technology can impact pedagogy and teaching methods in Home and Hospital Education contexts (HHE).

This document presents the results of the development of the definition of LeHo's Key Educational Factors (KEF) for the education of children with a medical needs at home, in the hospital and in the mainstream school.

### The process

These factors were initially developed by Michele Capurso and John Dennis of the University of Perugia, members of the LeHo team. A review of literature on key factors in education and in Educational psychology was conducted and its key factor were outlined and organised into a limited number of categories. Subsequently, these factors were compared with literature about the education of children with a medical condition. An initial draft version of LeHo Key educational





factors was then redacted and was sent to the project's team for review. This process lead to a first version of LeHo's KEF. These KEF were further reviewed in two more steps. They were presented and discussed at the Hospital Organisation of Pedagogies in Europe conference in Bucarest in 2014, and they were also sent to the LeHo's project Board of Experts for review.





# **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 relationships mediators can facilitate educational processes at all levels and in any context. <sup>1-3</sup>
- Due to social interactions with more capable peers and individuals, learners are able to perform at a level which goes behind their individual level of competence (Zone of proximal development).<sup>2</sup>
- 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. 4

### 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. <sup>5, 6</sup>
- 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. <sup>5, 7</sup>
- New information should always be linked with existing knowledge and personal experiences in meaningful ways.
- Individual and group emotional state and motivation are mutually influenced by each other. 9, 10

## C. Assuming roles

- As a result of new educational achievements the child should be able to assume new roles which are recognized by teachers, schoolmates, etc. <sup>11</sup>
- The child should be able to use learned skills to represent and narrate his/her internal and external reality to others. <sup>12</sup>





### D. Metacognition

- Thinking, reasoning, organizing, planning controlling should alternate with things like acting, doing, building, drawing, manufacturing. <sup>13-15</sup>
- Various materials should be involved in such a process because they activate different thoughts and sensorial experiences. 16, 17
- 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. <sup>18, 19</sup>

#### 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. <sup>5, 20</sup>
- Providing scaffolding and formative assessment facilitates learners in reaching higher goals and increases self-esteem and self efficacy. <sup>21, 22</sup>
- Each learning process should be preceded by a phase of listening and assessing of the child's own history, desires, aptitudes, and culture. <sup>23</sup>

#### 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 <sup>24</sup>.
- 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 <sup>4, 25</sup>. Such communication must be supported by properly shared accountability tools for monitoring students' progress <sup>26</sup>.
- 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<sup>27</sup>.





#### Suggested readings for LeHo:

APA, Work Group of the Board of Educational Affairs, Learner-Centered Psychological Principles: A Framework for School Redesign and Reform. Washington, DC: 1997, http://www.apa.org/ed/governance/bea/learner-centered.pdf.

Bonk CJ, King KS, editors. Electronic collaborators: Learner-centered technologies for literacy, apprenticeship, and discourse: Erlbaum; 1998.

Donnan, B., Webster T. (eds), What about School? A resource for parents of children, adolescents and young adults with cancer, Ronald McDonald House Charities, Thornleigh, New South Wales, 2013 (isbn: 9780646906973).

Sammons P. Key characteristics of effective schools: A review of school effectiveness research. B & MBC Distribution Services, 9 Headlands Business Park, Ringwood, Hants BH24 3PB, England, United Kingdom. 1995

#### References

- 1. Cole M. Cultural psychology: a once and future discipline. Cambridge, Mass.: Belknap Press of Harvard University Press; 1996. xvi, 400 p. p.
- 2. Vygotskii LS. Mind in society: the development of higher psychological processes. Cambridge, Mass.; London: Harvard University Press; 1978.
- 3. Salzberger-Wittenberg I, Henry G, Osborne EL. The emotional experience of learning and teaching. London: Routledge & Kegan Paul; 1983.
- 4. Bronfenbrenner U. Interacting Systems in Human Development. Research Paradigms: Present and Future. In: Bronfenbrenner U, editor. Making human beings human: bioecological perspectives on human development. Thousand Oaks: Sage Publications; 2005. p. 67-93.
- 5. APA. Learner-Centered Psychological Principles: A Framework for School Redesign and Reform. Washington, DC: Work Group of the Board of Educational Affairs, 1997.
- 6. Fosnot CT. Constructivism revisited: Implications and reflections. The Constructivist. 2005;16(1).





- 7. Bronfenbrenner U. The Bioecological Theory of Human Development. In: Bronfenbrenner U, editor. Making human beings human: bioecological perspectives on human development. Thousand Oaks: Sage Publications; 2005. p. 3-15.
- 8. Ausubel DP. The psychology of meaningful verbal learning. New York: Grune & Stratton, 1968: 1963.
- 9. Bronfenbrenner U. Ecological Systems Theory. In: Bronfenbrenner U, editor. Making human beings human: bioecological perspectives on human development. Thousand Oaks: Sage Publications; 2005. p. 106-73.
- 10. Lewin K. Environmental forces in child behavior and development. A Handbook of Child Psychology. Oxford, England: Clark Univ. Press; 1931. p. 94-127.
- 11. Bronfenbrenner U. The ecology of human development: experiments by nature and design. Cambridge, Mass.: Harvard University Press; 1979. xv, 330 p. p.
- 12. Bruner JS. Acts of meaning. Cambridge, Mass.; London: Harvard University Press; 1990.
- 13. Flavell JH. Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. American psychologist. 1979;34(10):906.
- 14. Brown AL. The development of memory: Knowing, knowing about knowing, and knowing how to know. Advances in child development and behaviour. 1975. p. 103-52.
- 15. Beard C, Wilson JJP. Experiential learning: a best practice handbook for educators and trainers: Kogan Page Limited; 2006.
- 16. Montessori M. To educate the human potential. Madras: Kalakshetra Publications, 1948; 1961.
- 17. Montessori M. Discovery of the Child. New York: Ballantine Books; 1972.
- 18. Scuola di Barbiana. Lettera a una professoressa. Florence: Libreria editirce Fiorentina; 1967.
- 19. Slavin RE. Educational psychology: theory and practice. 10th ed. Boston: Pearson; 2012. xxxiv, 572 p. p.
- 20. Dixon-Krauss L. Vygotsky in the classroom: mediated literacy instruction and assessment. White Plains, N.Y.; London: Longman; 1996.
- 21. Stanley N. Vygotsky and multicultural assessment and instruction. In: Dixon-Krauss L, editor. Vygotsky in the classroom: Mediated literacy instruction and assessment: Pearson; 1996. p. 133-48.
- 22. Bruner JS. Actual minds, possible worlds. Cambridge, Mass.: Harvard University Press; 1986. xi, 201 p. p.
- 23. Rogers CR, Freiberg HJ. Freedom to learn. 3rd ed. ed. New York: Oxford : Maxwell Macmillan International; 1994.
- Epstein JL. School and Family Connections. Marriage & Family Review. 1990;15:1-2: p 99-126, DOI: 10.1300/J002v15n01\_06
- Neal, JW, Neal ZP. Nested or networked? Future directions for ecological systems theory. Social Development. 2013. 22(4), p. 722-737.
- Johnson, ES. Ecological systems and complexity theory: Toward an alternative model of accountability in education. Complicity: An International Journal of Complexity and Education. 2008; *5*(1).
- 27 Sammons P. Key characteristics of effective schools: A review of school effectiveness research. B & MBC Distribution Services, 9 Headlands Business Park, Ringwood, Hants BH24 3PB, England, United Kingdom. 1995