Competence development through storytelling

a conceptual framework

Jaap van Lakerveld
Ingrid Gussen
Peter Frühmann

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I. Competences for lifelong learning

The European Framework for Key Competences for Lifelong Learning identifies and defines eight key competences necessary for personal fulfilment, active citizenship, social inclusion and employability in a knowledge society (European Commission 2010):

1. Communication in the mother tongue;
2. Communication in foreign languages;
3. Mathematical competence and basic competences in science and technology;
4. Digital competence;
5. Learning to learn;
6. Social and civic competences;
7. Sense of initiative and entrepreneurship;
8. Cultural awareness and expression.

II. Competence oriented learning through story telling

In the Sinbad project we seek to promote competence development among young children in the pre-school and early school years age of 3- 7 years old through story telling. Throughout the last decades the focus in education have grown towards a stronger achievement orientation. As a consequence discussions arise on lowering the entry age of compulsory school education. In many countries people discuss curricula even for children under the age of 3. Some say that it is necessary to do so to enhance the opportunities of disadvantaged children. Others wish to leave no talent underdeveloped and therefore wish for an early school start. Besides the two views indicated above, there is also a substantial group of experts, who think that young children gain from play and experience mostly, rather than from being taught. Storytelling, we believe, is powerful approach which mediates between these antagonist views. Listening to stories is a natural thing to do for children, it helps children to identify with characters, to develop empathy, to gain vicarious experiences by hearing about those of others. Children become part of the virtual world of stories, fiction, imagination and thus develop an understanding of the dynamics of what the key characters in the stories experience. Besides that, they are invited to talk about stories, to think about stories, to share thoughts with others . Thus they develop social competences. Important competences are developed in the domain of mother tongue. Also the content of the stories may stimulate competence development. Thus competences may be developed in any area. Last but not least by hearing stories, by listening to stories and by talking about stories, children develop competences of storytelling themselves. This adds to their ability to communicate, to reflect and to further develop themselves (learning to learn). In this framework document we first give some background of the concept of competence oriented learning. Next will explain a model of competence acquisition. Then we will relate competence oriented learning to storytelling eventually leading to a framework for the SINBAD project in which story telling is approached in a way to optimize

competence development. Probably it is needless to say that besides story telling for competence development purposes, we are fully aware of many other although often related purposes that may be distinguished (entertainment, team building, identity development, acculturation too name a few). In literature studied we found support for the thesis that story telling adds to literacy skills, numeracy skills (Angela Anning and Anne Edwards 2006), as well as to theory building competences (Marilyn Fleer, 2010; Elinor Ochs, Carolyn Taylor Dina Rudolph, Ruth Smith 1992). And besides that it proves to add to the mental health of children to such an extent, that it is also used for therapeutic purposes not only to develop competences, but it to give storytellers an insight into the needs and inner conflicts a child may be facing (Richard Gardner, 1993).

III.   A brief history of learning

Man and his smartest inventions

Throughout time man often has compared himself with his own smartest inventions (Vroon and Draaisma, 1985), be it a steam engine, a radio, or a computer. Twenty-five years ago, in their book about metaphors, Vroon and Draaisma indicated that 'in recent times' the human mind is often compared with computers. However computers show an evolution and as a consequence so did our perception of our own mind and maybe so did the mind itself.

The early seventies

In the early seventies behaviourism was beginning to lose its position (Lecas, 2006). The time of mechanical metaphors, simple ideas of mechanical minds, memory drums, programmed instruction made place for a much more cognitively oriented approach. The days of programmed instruction, in which learning was perceived as synonymous to being trained, and a matter of conditioning involving rewards or reinforcements were over.
The personal computer was introduced and became fashionable and invaded in all our offices in schools and universities.

The late seventies, early eighties

Psychologist started to think about the human mind as a personal computer, as a system that stores information, processes information, that retrieves information and that function better when the information stored is well organised and structured. The cognitive revolution took place. Cognitivism of course existed before, but now this approach became the dominant approach. Now that learning was assumed to be basically an information processing process, people began to use metaphorical concepts such a long term memory, short term memory. The human being and his metaphor approached each other. In a way one could argue that a person is not only compared to an information processing system; people actually are information processing systems (Lindsay and Norman, 1977).

The late eighties

Soon it appeared that computers were not just information processing systems; they could also be much more creative than people had anticipated. Artificial intelligence no longer was just science fiction; it started to become more and more a reality, so psychologist realised that the human brain might be far more constructive than they had assumed thus far. The cognitive approach was evolving into constructivism in those days. In the late eighties the cognitive view shifted towards a more constructivist one (Valcke, 2007). Knowledge in that approach is not just absorbed and stored; knowledge is a personal competence that is self-constructed. It is an integrated entity of knowledge, skills and attitudes, that allows the individual to act in a situation. Constructivism was a theory developed long ago, but the significant thing here is that it suddenly gained support in this era.

The early nineties

The computers developed rapidly and the Internet was introduced in organisations and homes. Suddenly computers appeared to be more than just processors or constructors; they appeared to be social interactive tools. Researchers, authors, journalists discovered that email allowed them to work closely together with colleagues all over the globe in a constructive way. It proved once more and more convincingly that leaning was more that individual construction of knowledge. Knowledge construction to a high extent appeared to be a social activity, in which individual and collective progress go hand in hand (Palinscar, 1998)
That is when constructivism turned into social constructivism. Again, of course Vygotsky had thought up all of this long ago, but now it became commonly accepted.

The late nineties

In the early nineties the Internet was still very much limited to storing searching and downloading information (Google) and to electronic mail. The attention of psychologists was drawn into two directions. One was inspired by the internal structures of computers and networks.
That is what led to theories of connectionism in which the actual brain structures of neural connections became the object of studies.
Other psychologists were focussing on the external links and connections and turned to connectivism in which learning was conceptualised as a matter of connecting to the right people as sources and resources of learning. Connectivism emphasizes the necessity of sharing knowledge and finding the right sources and persons to connect with (Siemens 2005). Connect*ionism* is very much focussing on the neuronal functioning of the brain, while connec*tivism* is paying more attention to communication and information technology and the potential these have for human learning.

The turn of the millennium

By the time we reached the turn of the millennium paradigms had been changed and challenged so often our that a kind of postmodern eclecticism set in. Like the computer, which had turned into a multitasking multimedia tool, the human brain was believed to be of a similar multi levelled structure with many underlying mechanisms and a variety of theories to explain them.

The second decade of the millennium

Today another profound development shows its impact on the way we work with computers and on how we think about learning. For a long time computers were perceived as sources of information, or channels through which sources could be found. Increasingly, however, computers today are used to upload information. Wikipedia is a good example of this trend.
A person puts information on the web, other persons add theirs, again other person upgrade the information or enrich it with their views or inputs and when the first person types the same thing into Google a next time he or she sees clearly that the knowledge has grown without his or her involvement in the meantime. In a way you might argue that learning takes place at a level beyond the individual. Knowledge

was produced, or created. The seat of that knowledge may not primarily be the human brain. Learning has turned into knowledge production and creation. Has man been taken over by his smartest invention? This short history of learning shows that learning itself is in such a permanent evolution that it requires a permanent re-orientation. It is our conviction that teacher educators, who's core business it is to think about learning, to promote learning and to optimize learning have a special responsibility in these matters.

Learning 3.0

The environment as provided by computers more and more proves to be responsive to the personal individual web history of the user of the web. This implies that increasingly the users will each be confronted with a learning environment of their own that differs from that of others. This implies that the contextual component of competence becomes more and more important to be considered. Society moves in a direction in which we all operate in a rich but personally focused learning environment. For matters of educating and learning this implies that learning increasingly has to become a mutual process rather than a one or two way process. Storytelling and dialogue may very well serve this purpose of mutual learning.

IV. Definition of competence(s)

Competences as defined by European bodies, as well as by educational experts throughout and beyond Europe, consist of three interrelated ingredients:
a. a knowledge component (the understanding part),
b. a behavioural components (the overt behavioural repertoire) and
c. a value component (including values, beliefs and attitudes).

Competences consist of a combination of skills, knowledge, attitudes, and behaviours required for effective performance in of a range of settings. A competence is defined as the holistic synthesis of these components. At another level a competence again may be divided in three components or aspects. It is the ability of a person to demonstrate:
1. actions in
2. in a context
3. at a particular level of quality.

This is the formal way of describing competences. In more down to earth language this implies that what matters is not only what persons know about things, but more important is what they are able to do with this knowledge, and whether they are able to continue developing their abilities. Does education make learners knowledgeable, or does it make them competent, that is the question.

The components of competence

The circle in the middle of the scheme includes the actual behaviour that shows the level of control over a particular competence. The components in the lower quadrant

of the circle (composing someone's potential) allow a person to show the intended actions (performance) in the upper quadrant and vice versa. In the upper quadrant the pupil demonstrates his/her acquired competence. The model is drawn in a way to suggest that it turns. The needs and goals of the learner *push* the learning process, while the challenges and the opportunities *pull* the learning process, thus creating a circular process in which experiences, gained through action in a context at a certain level of quality, add to the knowledge, attitudes and skills of a child allowing for higher level action in more complex contexts at a higher level of quality, and so on and so on. This process may be visualised by an expansion of the red circle in the middle of the model with every turn of disc, eventually filling the whole disc, thus synthesising all components in actual competence.

Competences for lifelong learning

The European parliament, the European Commission and the Council of Europe agree on the importance of eight key competences for Life Long Learning .
The European Framework for Key Competences for Lifelong Learning identifies and defines eight key competences necessary for personal fulfilment, active citizenship, social inclusion and employability in a knowledge society:

1.   Communication in the mother tongue;

2.   Communication in foreign languages;

3.   Mathematical competence and basic competences in science and technology;

4.   Digital competence;

5.   Learning to learn;

6.   Social and civic competences;

7.   Sense of initiative and entrepreneurship;

8.   Cultural awareness and expression.

Of these eight key competences some are more domain oriented (mother tongue; foreign languages and math and science); others are more transversal. They do not relate to a particular subject matter domain.

Digital competence

Learning to learn

Social and civic competences

Initiative and entrepreneurship

Cultural awareness and expression

Mothertongue

Foreign languages

Math and science
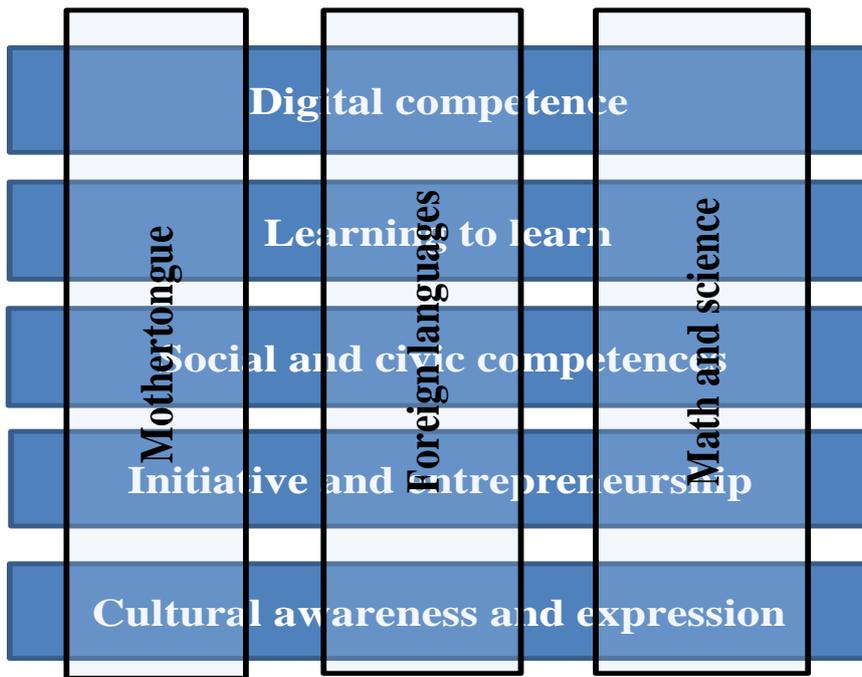
In the SINBAD project no competences domains, or aspects are excluded, but we assume that story telling is especially powerful for developing the competences 1, 5, 6, 7 and 8. Meanwhile we see also a potential to work on other competences through the content of stories, rather than through the story telling as such. We wish to stress once more that in the competence area of cultural awareness and expression we see the extra opportunity of storytelling as something children will learn, and not just as something they will learn from. Here the learning vehicle becomes a goal in itself.

V.   Competence oriented education and learning

In this section we move from general ideas on what competences are to competence oriented education and learning. Competence based learning and competence based education do not consist of traditional teaching situations. They are based on the idea that the learners learn by experience and discovery. This concept has an impact on how learners may be educated. The idea is that learners need to be actively involved in the learning situation. They learn best in meaningful contexts and in co-operation and interaction with others and with their environment. Thus they enable themselves to acquire knowledge, construe knowledge and check and cross check their newly constructed ideas with those of others. This emphasises the necessity of educating in a highly responsive and child centred way without neglecting the obligation of showing children new horizons and perspectives and enthusiasm for things they may never have heard of yet.

Key features of competence based education

Competence based learning requires an approach to education that differs from the traditional approaches to education. In competence based education one tends to stress the importance of powerful, or rich learning environments, that enable children to engage in meaningful learning processes. The most distinctive features of this approach may be summarized as follows:

- *Meaningful contexts*
  For learning to take place it is recommended to create or to look for meaningful contexts in which children will experience the relevance and the meaning of the competences to be acquired in a natural way.
- *Holistic approach*
  Competences are holistic and as a consequence the educative approach needs to be integrative and holistic as well.
- *Constructive learning*
  The philosophy of competence based education has its roots in the social constructivism that pervaded our views on learning these days. Learning is conceived as a process of constructing your own knowledge in interaction with your environment, rather than as a process of absorbing the knowledge others try to transfer to you. The consequence of this view is that educative processes may better be constructive, this as opposed to learning processes that focus on information processing after which the actual application of knowledge will have to be awaited.
- *Cooperative, interactive learning (with parents, peers, teachers etc.).* The basic idea behind competence based education is to help children to develop and construct their own knowledge. Co-operation and interaction are both domains of learning as well as vehicles of learning in other domains. If learning is supposed to be to some extent self-initiated, self-regulated, and aimed at developing personal competences, the educative approach must allow for diversity in needs and related to that in goals and objectives. This requires an open approach in which education includes dialogues between children and educators about expectation, needs, goals, choices etc.

- *Discovery learning*

  Open learning processes require learning that may be characterized as active discovery as opposed to receptive learning. This does not imply that learning content should not be made available and accessible. It means that the way of acquiring this knowledge or these competences, could not be just a process of providing information, but may better be embedded in a discovery based approach.

- *Reflective learning*

  Competence based learning requires apart from a focus on the key competences, also an emphasis on the learning processes as such. By reflecting on a child's needs, motivation, strategies, progress, results etc. it develops learning competences/strategies that may be considered meta-competences. The competence meant here usually is referred to as the process of "learning to learn".

- *Personal learning*

  In the competence oriented theories learning is conceived as a process of constructing your own personal knowledge and competences. Information, knowledge, strategies, only become meaningful for a child if they become an integral part of their personal knowledge and competences. In education this implies that children need to be able to identify with the contexts, the persons, the situations and interests that are included in the learning domains involved.

VI.   The relation with storytelling

So far we have outlined ideas on competence, on competence oriented learning and on general implications for educators. Now we will focus more particularly on storytelling.

When we approach storytelling from the perspective of competence oriented learning, we realise that many of the components in the model of competence, may be easily related to storytelling. It is possible to analyse a story and identify the knowledge included. It is also possible to see how the story may relate to skills and attitudes (listening skills, numeracy skills, communicative skills and empathy, concentration, moral issues etc.). Less obvious it becomes when we focus on the other aspects of the competence model (the actions, in a context at a particular level of quality). The story telling situation consists of phases and, or layers that first need to be further described before we can turn back to the model.

Phases and layers of storytelling
In a story telling situation we distinguish between the story as it is told as such, the way the story is presented and shared, the ways the content is processed once the story is told, and the process of transferring the story and the related competences to another situation than the one directly included in the story.

Phases/layers of story telling	Children's actions
Listening to the story	The child learns by identifying with characters in the story in the context as given in the story
Interacting while listening to the story	The child learns in a process of active involvement in the course of events through questions, signals, objects etc.
Processing the story	The child learns by reflecting upon the story through questions of the story teller or peers, or by tasks such as drawing a picture, engage in role play, etc.
Competence oriented action	The child is invited, challenged to transfer the acquire competences in other situations
Storytelling competence	The child develops storytelling competences itself that may be shown in re-telling the one just told, or in adding other own stories

VII. Implications for competence oriented storytellers

The implications for parents, or teachers, or other educators are manifold. In the framework presented below a sequence of areas of attention are formulated. The circle makes an impression as if all aspects are consecutive. In fact already in the beginning it is difficult to identify an order. Just left of the top it says "competence", meaning the storyteller should identify the relevant competences he/she wishes to develop/enhance. Then a story may be selected. One might also argue the order is the opposite, but never mind, we just wish to distinguish the steps not necessarily order them.

Selecting competences and stories
The story teller identifies competences to work on, selects a story that seems helpful for that purpose, or selects a story and identifies the competences the story may help developing and then decides to confirm/reject the selection of the story. The Wolf and the seven goats may serve the purpose of numeracy; other stories may develop a moral sense of good or evil, or may have such a game like structure that they enhance active listening skills. The storyteller analyses the story to see how rich the story is for the purpose of developing the competence(s) chosen.

Presentation
The next consideration is on how the story may best be told. Here a next consideration to be included is whether it is important first to tell the story (for instance to allow for developing the right feeling/atmosphere), or to engage in interaction from the start. This certainly depends on both the choice of the story as well as on the selected competence.

Storytelling space
In story telling much of the impact may be supported by the setting in which the story is told (in a classroom, in bed, at a camp fire). Furthermore it depends to some extent on the objects available (pets, clothes, furniture, pictures..) that guarantee the right atmosphere, or room for identification. The objects and the setting need to be chosen in such a way that they add to the power of the learning environment for the selected competence(s).

Involving children
The story teller has the option of engaging in talk about the story already while telling it, asking children to suggest actions, to express their expectations etc. This may increase their attention, and what's more their focus. That way the story teller can seek to strengthen the link with the competence chosen. However, this should not overrule the qualities of a well told story. If the approach would threaten to spoil the story, there may be an option of going through it twice (once uninterrupted; and then in dialogue).

Helping to develop competences
This stage of storytelling begins once the story is told. Then the challenge is to help children transfer their competence to other situation. This is where the story is no longer the learning context, nor is the storytelling setting, now the educator turns to other contexts, and challenges similar competences, but now in slightly, or increasingly different settings. This is done to help the children further elaborate and transfer their competences (No that you have heard the story, do you know about other animals in fairy tales?; What would you do if you got lost somewhere?).

Storytelling competence as a result
Listening to stories may help children to develop storytelling competences themselves. Therefore it is important to create a context in which there is room and opportunity to do so. (Have you ever been part of a story? Can you tell us something that made you very happy?) By reflecting upon both the content and the storytelling aspects, the child may further develop its storytelling competence.

These aspects of storytelling are all combined in the framework presented below.

Conceptual framework

For each of the steps in the process of preparing, delivering and follow up of storytelling the frame work will require an elaboration of guidelines per age group, including guidelines for story tellers on how to select or identify the competences concerned or needed; how to select adequate stories for competence development; how to present them; how to help children to participate in the process, how to help

them digest the stories and how to facilitate the process of extending the competences to other decreasingly similar contexts and settings.

Story telling process	Considerations	3- 4 Year old	4-5 Year old	6-7 Year old
Competence	Key competence for lifelong learning + specifications Emphasis on Knowledge, Skills or Attitudes			
Selecting stories	Links to stages of development; to the competence concerned, to the previous experience of the children, to day to day life at that age. Incidents etc.			
Presenting stories	Sequence Voice, gestures, mimics, sounds, visuals			
Storytelling space	Environment, furniture, colours, textures, materials, objects, group composition, arrangement, light, privacy			
Involving children	Space for interaction, tasks, questions, interaction among children, room for inputs, etc.			
Supporting competence development	New settings, assignments, activities, dialogues, feedback reflections, conclusions			
Acquiring story telling competences	Asking for own stories, allowing to present them, asking for feedback, giving feedback, reflection conclusion			

VIII. Perspective

In each of the cells of the scheme in the previous section the SINBAD project will need to bring together, or develop examples of stories and guidelines for storytellers. In the further elaboration of these guidelines the competence oriented views on learning and educating will have to be matched with views and experiences of story tellers. The story tellers with their repertoire, of characters, places, times, story lines, sensations, objects, physical gestures and attitudes, emotions, points of view, tones of voice, and themes, create the context and the setting of the envisaged process of competence development. By consciously applying the various modes of their repertoire they may optimize the learning/developmental context and setting. The give meaning; they connect; they position the child in past, present, and future; they link to other cultures. They do this in a variety of storytelling traditions. They tell folktales, legends, epics, myths. By providing such stories they create rich and powerful learning environments for the development of a variety of competences. The frame work presented in this paper is like a repository, that now needs to be filled with substance. This framework is the start of a process, of filling that repository and eventually turning it into guidelines and an (online) course offer for story- tellers either professional educators, or others (parents, grandparents, volunteers, ..).

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Appendix 1   SINBAD CRITERIA OF COMPETENCE BASED LEARNING IN A STORYTELLING CONTEXT

This scheme shows how competence based learning and storytelling may meet in a learning environment. Authentic, meaningful and rich contexts are the essence of competence based learning in a story telling context.

Learning process		Learning context		Stories	
Self (co)directed	O	Rich learning environment	O	A rich context	O
Imaginative	O	Meaningful context	O	Evocative context	O
Holistic	O	Multidisciplinary approach	O	Variety of domains	O
Constructive	O	Constructivist approach	O	Constructive listening	O
Social	O	Cooperative approach	O	Interaction with and among listeners	O
Inventive	O	Allowing for discovery	O	problem oriented	O
Interactive	O	Dialogues	O	Dialogue within and about the story	O
Personal	O	Personalized approach	O	Identification	O
Reflective	O	Opportunities for reflection	O	Multiple points of view	O
Moral	O	Evaluative	O	Value perspectives	O
Investigative	O	Feedback	O	Rich content feedback	O
Task oriented	O	Requiring an outcome	O	Constructive learning tasks	O
Productive	O	Demonstration/ presentation	O	Providing a platform	O