Dialogue exchanges between children's centers and families: building digital narratives with Digital Storytelling for educational documentation

Marina De Rossi\textsuperscript{a}, Eleonora Zorzi\textsuperscript{a}

\textsuperscript{a}University of Padova, Department of Philosophy, Sociology, Education and Applied Psychology (FISPPA), Padova (Italy)

Abstract. The integrated system of education and training 0-6 years children (D.L. 65/17) highlights the primary educational function of families by encouraging their involvement in the educational and school community. This confirms the horizontal educational continuity between families and services for 0-6, as an undisputed indicator of quality. Communication represents a founding element in the methodological approach of socio-cultural animation. It places educational services in privileged places in activating participatory processes and empowerment development for family education. Within this perspective, the integration of ICT in the promotion and mediation of communication processes is now at the center of a debate of scientific and methodological interest. The results of a project-based research will be presented on digital narrative documentation developed in a network of 8 childcare centers and involving 184 parents. The Digital Storytelling technique was used to define possible strategies and actions to innovate communication practices and activate participatory processes. The construction of a pedagogical environment based on accessibility and sustainability favored by the adoption of digital documentation practices emerged as an effective communication strategy with families.

Keywords: school-family communication, educational design, active methodologies, educational documentation, Digital Storytelling

Correspondence concerning this article should be addressed to Marina De Rossi, University of Padova, Department of Philosophy, Sociology, Education and Applied Psychology (FISPPA), Via B. Pellegrino n. 28, 3513, Padova (Italy), email: marina.derossi@unipd.it; Tel.0039-3311713225

Received: 24.03.2019 – Revision: 23.04.2019 – Accepted: 26.04.2019
Introduction

The educational continuity between childcare and families is one of the thematic paths and pedagogical fields to be updated, re-read and rethought after the establishment, although still in the process of implementation, of the integrated system of education and training from birth to six years (D.M. 65, L. 107/2015). The integrated system promotes, as it is written, the continuity of the educational and scholastic path of girls and boys in a "unitary process" in which the different subjects that compose it, including families and parents, are called to collaborate through common planning, coordination and training activities. The normative indications call for revisions and rethinks on the theme of the participation of families (Mantovani, 2003) in terms of practices of connections (Bronfenbrenner, 1986), of horizontal educational continuity (Anolli, 1986; Catarsi, 2008) and of what is called parent involvement in scientific literature (Grossman, 2012; Bove, 2007). In line with the best pedagogical and cultural tradition of educational services and children produced in our country, the educational perspective 0-6 years confirms and reaffirms the involvement of families and parents in everyday life and in the educational project of services for children (Luciano & Marcuccio, 2017; Zaninelli, 2014) and also recognizes the social role of reconciliation of life and work that services are called to play, support and support to parents and, in particular, to the most fragile family situations. Already in 2006, Mantovani stated that "...the exchange with the family, the support to it to establish a relationship of trust and therefore the basis for educational collaboration have long been not only an essential tool of the pedagogy of services for children and daily educational work, but also object, purpose and as such must be reconstructed and analyzed" (2006, p. 71). The terms of reflection from a methodological perspective are manifold as regards the choice and implementation of actions that favor participation, involvement, the construction of networks of interactions and, the creation of communicative exchanges to highlight practices of cultural connection. The question of the ability to develop alliances, effective processes of co-education to foster relationships of trust, remains central. Epstein's The Overlapping Spheres of Influence Model (1996), inspired by Bronfenbrenner's vision (1986), emphasizes the cooperation between school and family through two more or less overlapping or separate spheres, based on three forces at play: time; the characteristics and practices of the family; the philosophy and practices of the school. However, beyond the terminological choices, the didactic focus is to assume, connote the action of continuity between services and families as an indicator to define the educational quality of services and of
the educational and school system in general (OECD, 2015; Milani, 2012) and at the same time, as an effective tool to support many of the processes of cultural and social change of general interest. In this sense, educational documentation represents a fundamental element to connote the design and educational processes related to the culture of participation and educational alliance (De Rossi & Gentilini, 2007). As for teachers in schools of other orders and degrees, for educators and teachers in services 0-6, one of the most important resources for the creation of a real dialogue with families is represented by the offer of knowledge and facilitation of the understanding of the deep sense of the educational experiences realized. Documenting practices is that action capable, on the one hand, of constructing a material capable of giving back to the protagonists of the educational process (and therefore to those who live the experiences in real contexts) the memory of the lived experience, and on the other hand of communicating the experiences not only through the presentation of final products, but through the narration of the evolution of the "history" of the realized paths. In this sense, the documentation assumes both biographical and autobiographical professional characteristics with regard to the actors of the processes (children, educators, and teachers), and dialogic towards the community of families.

The high potential of educational documentation in narrative form makes it possible to make the experience known and understandable even to those who have not lived it, transferring it beyond the boundaries of the "places" of origin, both to encourage its repeatability, development, and reworking and to promote the dissemination and sharing of practices in a reflective and participatory perspective (Seits, 2008). Digital documentary competence, then, becomes an element of development of lifelong learning (lifelong learning) and life-wide learning (learning in every place of life) considering the processes of exchange essential for the effectiveness and efficiency of communication of both the individual and the professional community, and the family community (De Rossi & Restiglian, 2013).

The idea of documentation as a narrative includes new considerations given by theoretical research and technological development that identify the convergence to digital and multi-channel as two fundamental aspects of the new way of organizing and transferring knowledge. Thinking about building documentation, therefore information, using the world of digital communication, requires a paradigm shift: from hierarchical (paper text) to unstructured (digital text). In this sense, documentation represents the creative and flexible tool in the search for new languages and models of communication useful for the development of a narrative potential that can increase the transformative effectiveness.
The most recent studies, in fact, attach great importance to narrative methodologies used not only for the development of learning but as an innovative means of documentation for the implementation of methodological, observational and evaluative empowerment in initial and continuing education (Robin, 2008; Alismail, 2015). The process of technological development has allowed the transition from mono to multimedia, from traditional narrative forms - by their nature sequential, linear, closed - to the integration at a sensory, linguistic and technological level between word, sound, and image. An excellent example in this sense is represented by the Digital Storytelling (DST) technique, which consists in using digital media to create enriched stories ("media-rich") to be told, shared and preserved (Lambert, 2007). A DST can be defined as a short story (maximum 5-8 minutes) made with digital tools that allow the expression of emotions and points of view for the explanation of a significant event (in this case a project, a unit or sequences of educational units).

The first studies focused mainly on the characteristics and the steps necessary to realize this type of artifacts; the predominant need, in fact, was to distinguish them from other multimedia products already present on the net. The seven fundamental elements that identify the production of a DST have been defined as follow:

1. highlighting a personal point of view;
2. choosing a narrative structure built from the dramatic question;
3. focusing on emotional and engaging contents to integrate the factual ones;
4. using voice to narrate;
5. inserting an appropriate music, column or sound commentary;
6. synthetizing of the story;
7. using an adequate narrative rhythm for the communicative purposes and the target of potential users.

According to Bruner (1991), stories constitute an "organizing device" that, through the assumption of other points of view, favors the process of reorganization of thought, making it more suitable for comprehensible and communicable representations. Telling is always a cognitive-reflexive act that calls into question superior abilities of personal thought, but it is also a dialogical act (the narrative discourse is always addressed to an "other" who, depending on the context, could be a single person, a group or an "other imaginary" understood as a projection of ourselves or a personification of a problem/object).

In a documentary perspective, therefore, it is a question of witnessing complex activities, narrating to share good practices. The power of the
digital tool lies in combining two different worlds: on the one hand, that of narration, reflection, interpretation and evaluation, on the other hand, that of new media and innovative technological tools (computers, tablets, video cameras, cameras and smartphones) (Petrucco & De Rossi, 2009; De Rossi & Petrucco, 2013).

Educational documentation, using digital narration carried out according to the approach of the DST, allows to make explicit multiple elements of the educational action:

- the nature of the learning processes and the cognitive/emotional strategies put in place by each child and by the group;
- the action of professionals in educational-didactic experiences;
- the choice and use of methods, techniques, and tools used in everyday work;
- the social and cultural dimension of the educational action implemented;
- the strategic choices and aims of the action.

The internal use is aimed at allowing observational, evaluative and self-evaluation processes for educators, the elaboration of "memory" for the service or opportunities for visibility and an exchange in the community of professional practice. Besides this, it is interesting to use digital narratives (DST documentation) first of all in view of the process of exchange with the outside in order to encourage greater sharing with families and the territory and, virtually, with increasingly large groups of experts in the field. It is also interesting in order to offer a valuable contribution to the training of new educators.

The semantic areas of the documentation

Some elements characterizing the design of the digital narrative documentation, emerged from various studies (De Rossi & Restiglian, 2014; 2016), have led to develop a model consisting of semantic areas of conceptual organization which can be considered as a guide during the drafting of the storyboard, an essential phase for the construction of a DST documentation.

The seven semantic areas are the following:

1. project area (analysis of needs, aims, objectives). This is the area of the synthetic description of the educational-didactic planning within which the experience to be documented is configured;
2. methodological area (techniques, strategies, conduction methods). This is the area of the description of methodologies, work tools, strategies and techniques for conducting the experience. The
theoretical references and the justification of the choices are important because they support the whole daily life of the service and make explicit what is implicit in the educational actions;

3. communication area (target group for documentation, intended use, communication supports, tools). This is the area of internal and external communication of documentation;

4. contextual area (spaces, times, organization, resources, targets). This is the area of the description (visualization) of the context and environment in which the experience takes place. It includes theoretical references to the justification of choices;

5. experiential area (activities, contents). It is the area of the description of the contents and the educational activities carried out, specifying the articulation in phases and/or meetings;

6. observation and evaluation area (times, tools). It is the area of the description of the methods of observations used, of the tools put in place and includes the explanation of the indicators of process/product evaluation;

7. area of professional autobiography (reflection on experience, self-evaluation, redesign). This is the area of the description of the point of view of the educator or the educational team. Strong and weak points, critical points, optimization of resources are highlighted. Self-assessment is made with respect to the choices made, the results obtained and one's role in the process.

The design thus constructed qualifies the digital artefact so that it can "account" comprehensively for all the dimensions of an educational experience and, therefore, of a project idea that takes action. Of course, the weight of one area rather than another depends on the specific aims of the documentation itself and on the target to which it is addressed. Crucial elements for a fully aware and effective use of a process that can be considered concluded just when it is understood.

The coverage of all seven semantic areas allows to keep track of the evidence produced in the action, of the process of building a product or of the achievement of a result by valuing the participation, the contribution of the children and their global and specific development, both as individuals and as a group in interaction. To do this, it is essential to define the methodologies used, as well as the contexts from a spatial and temporal point of view, the recipients of the documentation (parents, children, colleagues, funding bodies, management bodies...) that bring with them different levels in the use of observation and evaluation tools. This is much more technical for example in the case of documentation addressed to fellow educators or pedagogical coordinators. The educator is not excluded
from this reasoning, who finds in a digital artefact like the DST elements of reflection and self-evaluation of his experience, essential elements for a remodeling of the activity in progress and for the design of further proposals (De Rossi & Restiglian, 2013).

**Research design, method, and tools**

The research was carried out in 8 children's centers, a form of integrated service 0-6 regulated by the Veneto region. The project involved the training of operators (educators and teachers), the implementation of a digital narrative documentation action through DST and the collection of the opinions of families. A total of 62 operators participated (34 educators and 28 nursery school teachers).

The methodology used is project-based research (Stoecker, 2013), which involved several phases:

- **phase 0**: presentation of the project and voluntary involvement of operators and families (November 2018);
- **phase 1**: training of operators through an 18-hour workshop on digital narrative documentation through DST (January-February 2018);
- **phase 2**: design and implementation of DST documentation of educational units carried out in contexts (February-April 2018);
- **phase 3**: dissemination of artefacts through the Google Classroom platform and use of products by parents (April-May 2018);
- **phase 4**: administration of a questionnaire to survey parents' perceptions of activities and documentation products (June 2018).

The objectives of the research were aimed at bringing out the opinions of parents: on communication methods and strategies in childhood centres; on the introduction of digital narrative documentation practices through DST as a communication tool of educational planning and educational activities carried out in the centers; on the use of DST to promote understanding and sharing of educational work in services.

The structured questionnaire was administered anonymously by CAWI CAWI (Computer Assisted Web Interviewing) through a link linked to the platform where 76 DST of documentation produced by the operators involved in the training were uploaded. The questionnaire was proposed to 204 parents (120 females and 84 males) who had agreed to participate voluntarily; 2 weeks were given to view the DST and 184 respondents (112 females and 72 males). Parents agreed to participate in the research and they authorized the researchers and to the use and process of data for the purpose of the present study. Parents freely analyzed one to three DST,
provided that they did not refer to the group to which their children belonged, in order to avoid opinions being influenced by knowledge of the activities through direct experience. In the analysis of data, the respondents were not disaggregated by type of service used in the kindergarten, i.e. nursery or kindergarten, as the type of structure provides the same organization and management methods between the integrated services.

The questionnaire is composed of 4 dimensions: A) personal data (3 items); B) service-family communication (4 items); C) communication-educational design relationship (4 items); D) digital narrative documentation (4 items). In total there are 15 items proposed; the items of the dimensions B, C, and D have been structured with a self-standing scale at 4 levels (1 disagreement; 4 complete agreement). The dimensions B and C were designed to detect general opinions on how to communicate family and service and on the relationship with educational planning, while dimension D focused on the evaluation of the project proposal. To determine the scale's reliability and internal consistency, the Cronbach's alpha was calculated (0.845) and proved the reliability of the tool.

To test the internal consistency of the scale, the Cronbach’s alpha coefficient was calculated for the 12 items of the B, C, D dimensions, and resulting 0.845.

**Results and discussion of dimension B and C of the questionnaire**

As far as the first dimension A (personal data) is concerned the profile of the 184 responding parents is composed of 112 females (30% aged 20-30; 42.5% aged 30-40; 19.16% aged > 40) and 72 males (19.4% aged 20-30; 47.6% aged 30-40; 33.3% aged > 40). The total 8.5% is composed of people of foreign origin, but with sufficient knowledge of the Italian language to be able to respond to the questionnaire.

As it is possible to see in the summary table of the analysis of the collected data (Table 1) reports the average of the scale values for each item and the standard deviation. The median and the fashion were used to see the positioning of the answers in the 4 levels considered in the scale of agreement.

In the second dimension B, service-family communication, (Table 1) among the 4 items proposed, the lowest average level of responses was item2c (mean 2.34, median 2) which refers to the opinion of the respondents on the institutional meetings planned as an effective means of communication between families and operators of the centre. When comparing this data with i.2b (mean 3.75, median 4) seems to highlight criticality of real participation due to the lack of time of parents. Other
aggregative moments, such as themed meetings, gatherings, seem to be recognized as favorable spaces for communication (i.2a mean 2.56, median 3), even if it is the most widespread opinion (i.2d mean 2.88, median 3) that more effective forms are customized and on-demand such as, for example, interviews.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my experience, communication with families is enhanced through participatory activities (themed meetings, gatherings, parties, etc.).</td>
<td>2a</td>
<td>184</td>
<td>2.56</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Daily commitments prevent a continuous and participated communication with the kindergarten.</td>
<td>2b</td>
<td>184</td>
<td>3.75</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>The institutional meetings planned by the service are an effective moment of exchange and communication with the educators/teachers.</td>
<td>2c</td>
<td>184</td>
<td>2.34</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Communication with families is effective when the service includes meetings on request and in a personalized form.</td>
<td>2d</td>
<td>184</td>
<td>2.88</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 1. Answers to the questionnaire, dimension B (family service-communication)

Dimension C highlights (Table 2), instead, the respondents' opinions on the relationship existing between the communication modalities offered by the centers to the families and the educational planning, which includes guidelines, choices of objectives, priorities and educational strategies. It represents the focus of the participatory intentionality that through effective communication could allow creating real conditions for the realization of the educational pact between families and operators of the services of the centres. There is a positive degree of agreement on the strategy of open dialogue on design between parents and educators and teachers as a strategy to promote processes of sharing (i.3a, mean 2.86, median 3, mode 3). Such a positive degree of agreement can be found in the i.3b (mean 2.75, median 3, mode 3) in considering that the participation of families in the life of the service is a means to improve the educational offer. However, as far as the respondents' experiences are concerned, however, real co-design activities do not seem to be widespread and known (i. 3c...
mean 2.34, median 2), just as it seems that it is not considered important
that the communication of the planning of educational activities is carried
out through written documentation.

<table>
<thead>
<tr>
<th>The sharing of educational lines takes place if parents can dialogue with educators and teachers on the elements that make up the educational design (objectives, methodologies, activities, organization, evaluation)</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a</td>
<td>184</td>
<td>2.86</td>
<td>3</td>
<td>3</td>
<td>0.504</td>
</tr>
</tbody>
</table>

| Participation in the life of the service of parents helps to improve the educational offer | 3b | 184 | 2.75 | 3 | 3 | 0.564 |

| According to my experience in the service are active modes of educational co-design with families | 3c | 184 | 2.34 | 2 | 3 | 0.701 |

| It is important to communicate educational design through written documentation | 3d | 184 | 2.56 | 3 | 3 | 0.564 |

Table 2. Answers to the questionnaire Dimension C (the relationship between communication and educational design)

**Results and discussion of the D dimension of the questionnaire: parents' opinions on the use of the DST of educational documentation**

The last dimension of the questionnaire, dimension D, concerns the parents' opinions on the dissemination of digital narrative documentation through DST as an additional communication tool. The hypothesis of the research was that the sharing of visual artefacts, structured according to the canons of narration, could facilitate the understanding by families of educational activities designed and carried out in different services for children. Moreover, this mode could be a real means of support for families to develop reflective processes and dialogue on the guidelines of the educational work of the services, on methodologies, organization, and evaluation. Finally, the possibility of equipping services with technological platforms with access to families could support participatory processes, not always guaranteed by the way in which meetings and interviews are held in
attendance. As we have said to the parents who participated in the research, we asked them to view from 1 to 3 DSTs of documentation produced by the services of the infant centres; we explained in the delivery of the administration the need to choose DSTs of activities other than those in which their children were involved to avoid that the responses were influenced by other channels of communication derived from the direct or indirect experience of the activity.

In Table 3 it is possible to see the results of the 4 items that give an overall picture of opinions tending to an agreement with positive statements on the usefulness of digital documentation with DST (i.4d. mean 2.97, median 3, mode 3). In particular, the positive opinions on the DST as a tool for educational documentation can be seen in i.4a. and i.4b. For parents who responded, the documentation of the activities elaborated with DST seems to make clear the communication and the understanding of the objectives of the planning from which the documented activity derives (i.4a. mean 3.56, median 4, mode 4). Similarly, the potential of the DST in making the methodological choices that guided the activities comprehensible is evaluated. With regard to the possibility of spreading the predisposition and the use of platforms, such as sharing environments between families and services of the centres, the opinions present a high degree of agreement (i.4c mean 3.75, median 4, mode 4).

| The DST documentation makes clear the objectives of the educational project of the activity | 4a | 184 | 3.56 | 4 | 4 | 0.504 |
| The DST documentation of activities helps to understand the teaching methodology | 4b | 184 | 3.22 | 3 | 3 | 0.608 |
| Making it possible to access a platform containing DST documentation encourages processes of educational exchange and sharing between families and teachers/educators | 4c | 184 | 3.75 | 4 | 4 | 0.440 |
| The documentation with DST allows a more effective communication to external people (e.g. community, families) | 4d | 184 | 2.97 | 3 | 3 | 0.595 |

Table 3. Answers to the questionnaire Dimension D (digital narrative documentation)
Conclusion

The project involved 16.6% of the accredited children's centers in Veneto; the 184 parents who participated by answering the questionnaire, after having seen the DST documentation, although they are a limited number compared to the regional population, allowed a proactive reflection regarding the theme of communication between services and families. Reasoning and researching about communication among educational agents, remains one of the most central topic today, in a complex world in which the deep sense of communication (com-munis, as putting something valuable in common; as jointing; sharing), is transformed most of all by new technologies and digital devices. Creating networks, sharing repertoires and artefacts, has always been a necessity for 0-6 services’ professionals, to narrate with children, their developments and progresses to families, using a language not just connected to the verbal or oral one (Fink, 2003; Fish, 1980). DST documentation has allowed to implement communication between parents and professionals, but also communication of children toward themselves, thanks to tools which allowed them to touch and create histories in which they were aware and “speaking” actors, in which emotions can take voices and images (Goleman, 1995) and in which competences of efficient communication and creativity can start to be nurtured (Marmocchi, Dall’Aglio, & Zannini, 2004).

Overall, the survey showed parents' interest in the innovation and sustainability of communication strategies aimed at families; the positive use of DST as a tool for documentation and the adoption of virtual environments to facilitate access to the life of the service. Childcare services, in fact, are configured as the first public educational space, in the sense of extra-family and community expression, which places the relationship with families a fundamental process to build conscious and democratic participation. The promotion of actions of dialogue exchange is essential to direct the commissioner of services and families towards a common educational purpose by focusing on the child in a perspective of promotion, support, collaboration, and active partnership. Most of all, mediating these dialogue exchanges through creative devices and technologies, allows to create a flexible and open “educational community”. This community involves parents, children and professionals capable of sharing artifacts and repertoires - and the discussions upon these - that can be useful to empower contemporary human and social relationships featured by fluid dynamics and improvisational changings (Bauman, 2011; Santi & Zorzi, 2015).
The digital educational documentation allows to know what happens within the educational service, to share the pedagogical projects in which the children have been involved, often the documentation from this point of view is able to create an educational/educational pact between home and school that is stronger the more it is based on transparency and sharing.

Various research experiences on educational documentation in early childhood services have been present at national level for a decade (Chicco, 2010). There are many aspects to consider both for the training of educators and for the operational methodologies to be implemented in the situation (Silva, Sharmahd, & Calafati, 2018). The interesting aspect is the impact of the documentation on the quality of communication with families, as presented in this research. The developments of the research for 2020-21 are the dissemination of the narrative methodology of educational documentation based on the DST in a significant number of early childhood services in the Veneto region (Memorandum of Understanding with the Regional School Office; Italian Federation of Nursery Schools).

References


