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# **LINK–Learning In a New Key: Engaging Vulnerable Young People In School Education**

**Programme Erasmus+, Key Action Cooperation for Innovation and the Exchange of Good Practices, Action Strategic Partnerships for school education; Agreement No: 2015–1–UK01–KA201–013752.**

## **Impact Study 2: FINAL REPORT**

**University of Bologna**

**The impact on the students and the teachers  
of the specific training offered to teachers  
involved in the LINK project**

**by**

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## 1. Background

The main aim of the Impact Study 2 of the LINK project is to *“test the efficacy of the interventions in the school for promoting the wellbeing of vulnerable the young people identified and their willingness to engage in continuing learning and school attendance”*. (p. 48, Project Original Proposal Submitted Document).

The Strategic Partnership involved in the L I N K Project is a multi-professional partnership comprising 4 schools and 5 supporting institutions from four different European regions with a spread of proven expertise in teaching, social care, therapeutic intervention, music therapy training, educational intervention, education management and educational research”. (p. 78, Project submitted).

On the occasion of the first Joint Staff Training Event (April 2016, University of Bologna) the UNIBO Team proposed a pre and post-test design, together with case-studies, focus groups, video recordings observation and questionnaires (mixed-method), in the framework of participatory action research. The impact study 2 adapts this proposed protocol to the different challenging classroom contexts. The impact on the students and the teachers of the specific Link teachers training (TT) and related class based activities (CBA) carried out by teachers through the trainers supervision has been evaluated through the measurement of certain indicators related to the following constructs: the Flow and Emotion Regulation strategies. The Teachers Focus Group implemented during the second year of the Project and carried out by the Unibo team allowed to share reflections concerning teachers competences.

The general protocol research design together with an analysis of theoretical framework concerning the relation between music listening and improvisation, emotion regulation and flow construct in educational and music therapy setting has been illustrated in Addessi, Bonfiglioli & Clough, 2016, a paper for the Proceedings of the SIMCAM Conference, Porto Alegre, Brazil, May 2016.

In order to evaluate the impact of the LINK actions and experiences following the protocol foresees these research activities:

- ➔ Children and adolescent (Group Target 1): questionnaires administration at the beginning (PRE phase) and at the end (POST phase) of the Teacher training and related Class Based Activities (CBA) in order to analyse the impact on Flow and on Emotion regulation strategies;
- ➔ Children and adolescents (Group Target 1): case studies to observe the Flow experience;
- ➔ Teachers (Group Target 2): Focus Group meetings to collect data concerning the impact of the Link educational practices integrated by contributions from music and art-therapy together with reflections about their professional role.

### **1.1 The Flow emotional state**

The state of Flow is defined by Csikszentmihalyi (1990) as "optimal experience", which is perceived by the subject as a balance between the goals he wants to achieve and the skills that the subject possess to achieve these objectives. The flow is characterized by the presence of high levels of a number of variables, which are: focused attention, clear and immediate feedback, clear objectives, pleasure, control of the situation, no worry of failure, self-consciousness disappeared, changing of the perception of time. Several studies have applied the flow theory in the field of music education, improvisation and composition (O'Neill & McPherson, 2002; Sheridan & Byrne, 2002; Byrne et al, 2003; McDonald et al, 2006; Nijs et al, 2012). Most of them are based on interviews or written questionnaires (cfr. Jackson, Eklund and Martin, 2010). The *Flow Scales* (Jackson, Eklund, & Martin, 2010) is a self-report tool composed by several groups of scales for Flow assessment (State Flow and Dispositional Flow in the Long, Short and Core form) that allows to describe the characteristics of the experience of the Flow, to evaluate the Flow as a complete and coherent experience, and to grasp the individual experience of "being in the Flow core". The Unibo team proposed to use the

S-FSS, Short Flow State Scale: this tool might be important to consider when the administration of brief forms is appropriate by methodological or practical limitations (e.g., time, survey space).

Custodero (2005) introduced the so-called "Flow indicators", which allow to "observe" the state of well-being in everyday musical experience of young children.

In the studies presented in Addessi et al. (2006) and Addessi, Ferrari and Carugati (2015), it is introduced an original Flow grid which allows both a qualitative and quantitative approach (mixed methods) to the study of the state of flow in children during improvisation sessions with interactive reflexive musical system. The Flow Observation Grid by Addessi, Ferrari, & Carugati (2015) and Addessi, Ferrari, Carlotti, Pachet (2006), allows to carried out observation with the aim of identifying the state of well-being by measuring the intensity of 5 variables of the Flow (called "behaviours"): focused attention, clear-cut feedback, clear goals, pleasure, and control. This Flow Grid allows to observe and measure the Flow state. The basic idea of this grid was that the observer did not register the flow state, but rather register the *variables* and their intensity (from 1 to 3 levels of intensity). The flow is considered present when all variables are registered by the observer at the higher level (level 3). In the first study (2006), the full process was realised manually (paper and pencil record). In the second study (A, F, & C, 2015), the video analysis was supported by means of the software Observer: the observers recorded over time the presence, the frequency, the duration, and the level of intensity of each behaviour, and the Flow was measured by means of an automatic process by the software Observer; in accordance with Csikszentmihalyi (1996), when all behaviours showed the higher levels of intensity (3) the state of flow was indicated as present. Other combinations of the intensity levels of behaviours determined the state of arousal, control, anxiety, relaxation, worry, boredom and apathy. In the first study, 9 Flow variables were measured for the whole observation session. In the second study (2015), 5 variables were registered second-by-second by means of the Observer software. For the Impact Study 2 of the Link Project, the Unibo team used the same grid: in particular, the observers will record the same 5 variables and

their level of intensity, as in A, F, & C (2015). The researcher will record the Flow state when the 5 variables are recorded by the observer at the higher level of intensity. It will be used the manual procedure, as in the first study (2006). Some elements of this Flow Grid have been adapted for the Link Project specific aims and two shoring sheets were implemented: Anna Rita Addessi (UNIBO) prepared a Guide for the LINK–Flow video analysis, with the instructions for the observers at the end of August 2016; the Flow Simple observational schedule (Tarr & Addessi, 2017) was prepared for registration in real time (see paragraph “Materials”).

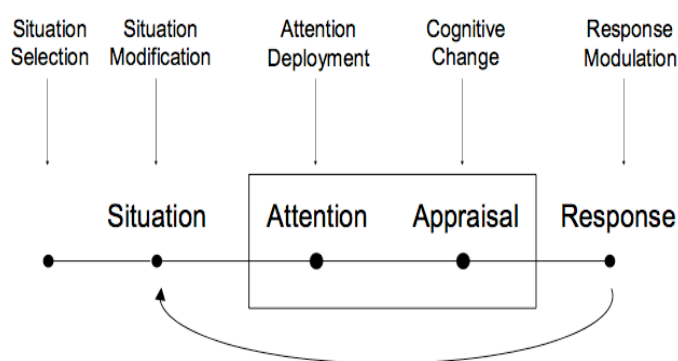
## **1.2 Emotion regulation**

The self regulation capacities of vulnerable young people are one of the main themes that the Link project has considered. Among the list of expected impacts of the project, the following pertain/take into consideration this specific aspect: “the vulnerable young people will begin to recognise some new musical and arts based routines in the school that help them to feel safe and enable them to build their resilience and self regulation capacities in a way that supports them as learners” (from the original project application form, p.59). Psychology of music literature analyses the relation between music and affect regulation. Music overall is a successful regulation device with a range of underlying mechanisms helping different strategies; music listening help through broad affect regulation strategies like distraction, introspection, and active coping and plays a major role in creating happiness and relaxation (van Goethem & Sloboda, 2011).

Moreover, emotion regulation through listening to music is a primary goal of the everyday use of music (Schäfer, Sedlmeier, Städtler, & Huron, 2013).

Emotion regulation may be defined as individuals’ deliberate or automatic attempts to influence which emotions they have, when they have them, and how these emotions are experienced or expressed. Emotion regulation involves changes to one or more aspects of the emotion, including the eliciting situation, attention, appraisals, subjective experience, behaviour, or physiology (Gross, 1997; Mauss, Bunge, & Gross, 2007).

This emotion regulation theoretical model includes five “families” of emotion regulation strategies: (a) situation selection, (b) situation modification, (c) attention deployment, (d) cognitive change, and (e) response modulation. Emotion regulation strategies have been differentiated as antecedent focused or response focused, along a timeline consistent with an unfolding emotional response. Cognitive Reappraisal is an antecedent–focused strategy and expressive suppression is a response–focused strategy; both strategies are commonly used in everyday life (John & Gross, 2004).



**Figure 1: The emotion regulation strategies. From Gross & Thompson, 2007**

Cognitive reappraisal is a cognitively complex regulatory strategy; it involves changing how one thinks in order to influence one’s emotional response. Expressive suppression, as a regulation strategy, involves expressive changes in order to influence what others are able to see of one’s emotional response.

These emotion regulation strategies have different effects: the use of cognitive reappraisal decreases emotion intensity and leads to diminished autonomic responses; expressive suppression, physiologically, leads to increased autonomic responses, decreases verbal memory and social function. Results suggest that the reappraisal generally has more favourable consequences than suppression (Gross, 1998, 2001; Balzarotti, John & Gross, 2010). Moreover, research report that cognitive reappraisal is predictive of a healthier psychological profile while expressive suppression is predictive of psychological distress (Dennis, 2007; John & Gross, 2004; Werner & Gross, 2009).

## 2. The LINK Impact Study 2

### 2.1 The schools context and the target Groups

The Istituto Comprensivo Granarolo dell'Emilia, inserted in a medium-sized municipality with 11.972 inhabitants, was established in 2000 to aggregate Nursery schools, Primary, Secondary and Musical schools. The integration between the different types of schools, while respecting their own characteristics, allows to correlate different teaching and learning approaches creating a curriculum continuity between the primary and secondary stages of schooling. The Istituto Comprensivo Granarolo dell'Emilia has a specific music curriculum. Socio-economic families background is medium-high level. The school welcomes students from a social context in which unemployment is relatively low, non-EU immigration is considerable and there are many cases of young people with disabilities and special educational needs. In the area there are also groups of Sinti.

In total, the ICGE has 48 classrooms (1077 students in 2016). The percentage concerning the Early School Leaving is low: *< 12 % (official data from RAV)*. The school policy regarding vulnerable young people, including a list of school-wide or student-focused intervention measures, are the following:

- welcome services;
- support actions for children and young people with special educational needs, disabilities and social and emotional difficulties;
- training curricula improvement;
- communication and creativity through music and art and theatre activities to contrast emotional and social difficulties and early school leaving;
- educational activities and programmes for intercultural understanding and for respecting the different abilities as a source of mutual enrichment to allow social integration;
- providing tools that allow the knowledge and use of different of non-verbal and artistic languages.



The actions carried out for vulnerable young people during the LINK project: cultural and artistic activities that make these pupils protagonists, enhancing the individual attitudes and expressions of each individual student. The main goal is to allow learners to “learn by doing”. Faced with a traditional sectoral and communicative curricular school curriculum, these activities promote and facilitate the transition to a participatory and motivational learning that can enhance the skills of learners. Teaching skills is based on the assumption that students learn best when they actively build their knowledge through learning experiences based on experience. Helping pupils discover and pursue interests maximizes their degree of involvement, productivity and talents. The most important LINK actions aim are the following:

- to activate personal creativity through fantasy and imagination;
- to encourage the acceptance of their individuality;
- to develop self-knowledge;
- to allow to use different languages, especially non-verbal and singing languages;
- to develop the capacity for cooperation in group work;
- to enhance emotional recognition, expression and regulation;
- to facilitate personal awareness even in children/young people with difficult lives and social disease.

## **2.2 Objectives and hypothesis**

The Link project aim at exploiting theoretical understandings and practical know how developed by expert in music and dance movement therapy through applications with teachers and educationalists in challenging classroom contexts. In this general framework, the impact study 2 aim is to evaluate the impact on the students and the teachers of the specific Link training offered to teachers involved in the project. In particular, it is assumed that the involvement in the Link activities (Teacher Training and Class Based Activities) enhances: students functional emotion regulation strategies (as cognitive reappraisal measured trough the ERQ), the students State Flow (measured trough the S-FSS and observed with the simply Flow

Observation Schedule). Moreover, the data collected from the transcription of the teachers Focus Group allow to analyse the teachers conceptions about the Link educational practices and experiences integrated by contributions from music and art-therapy and implications for related to the teachers professional role.

## 2.3 Participants

The Link project foresees two Target Groups:

- The Target Group 1: *“The young people in Italy who are currently disadvantaged in formal education because they are challenged by their emotional and mental states and consequent poor social interactions”*.
- The Target Group 2: *“Teachers and educators. A training programme is implemented in therapeutic music and arts approaches and practices for these teachers / educators that are conducive to young people's well being, resilience and continuing learning”*.

(p. 27 Project submitted).

In order to analyse the specific impact of the training implemented during the Link Project, participants have been grouped into:

- students and teachers from the ICGE primary and secondary school involved in the Link activities (Teacher Training and Link class based activities): 3 primary school classes and 3 secondary school classes;
- students and teachers from the ICGE primary and secondary school not involved in the Link activities: 1 primary school classes and 2 secondary school classes.

The level of academic results of both group at the beginning of the school year were at the same level.

Concerning the Target group 1, the students involved were 225 students from primary and secondary school.

The primary school students were n. 100 divided into two groups: classroom with teachers attending the Teacher Training and Class Based Activities (75 children, 3 group classes, 8–9 y.o) and classrooms not involved in Link activities (25 children, 1 group class, 8–9 y.o).

The secondary school students were n. 125 divided into classroom with teachers attending the Teacher Training and Class Based Activities (75 children, 3 group classes and 2 music classes, guitar and oboe, 11–13 y.o) and classrooms not involved in the Link activities (50 adolescents, 2 group classes, 11–13 y.o).

The teachers involved in the study were n.11 from primary and secondary school divided into two groups: teachers attending the Link Teacher Training and teachers not involved in the Link Teacher Training.

In particular, the primary school teachers involved in the Link Training were n. 6 teachers (3 group classes with students 8–9 y.o.) and teacher not involved is n.1 teacher (1 group class with students 8–9 y.o.)

The secondary school teachers involved in the Link Teacher Training were n. 5 teachers (3 group classes and 2 music classes, guitar and oboe with students 11–13 y.o) and the teachers not involved are 2 teachers (2 group classes with students 11–13 y.o).

## **2.4. Materials**

### **2.4.1 The Flow Grid and the Flow Scale (S-FSS)**

In order to investigate the flow state, two materials have been proposed: the *Flow Grid* (Addessi, Ferrari, Carlotti, and Pachet, 2006; Addessi, Ferrari, and Carugati, 2015), a tool to observe and measure the flow emotional state of students, and the *Flow Scales* (Jackson, Eklund, & Martin, 2010) a questionnaire implemented to measure the flow experience.

#### **2.4.1.1 The Flow Grid**

In the framework of the LINK Project, case-studies of Class Based Activities can be carried out by means of the Flow Grid as from Addessi, Ferrari, & Carugati (2015) and Addessi, Ferrari, Carlotti, Pachet (2006), with the aim of identifying the state of wellbeing of the participants by measuring the intensity of 5 variables of the Flow:

focused attention, clear-cut feedback, clear goals, pleasure, and control. Some adaptations and 2 new scoring sheets were implemented for the purposes of LINK project. The Flow Grid implemented in A,F,C,&P (2006) and A,F,&C (2015), allows to both **observe and measure** the Flow state. The basic idea of this grid is that the observer does not register the flow state, but rather register the *variables* and their intensity (from 1 to 3 levels of intensity). In accordance with Csikszentmihalyi (1996), when all variables showed the higher levels of intensity (3) the state of flow is present. Other combinations of the intensity levels of behaviours determined the state of arousal, control, anxiety, relaxation, worry, boredom and apathy. In (A,F,&C, 2015), the following 5 variables were registered second-by-second:

- focused attention
- clear-cut feedback
- clear goals
- control of situation
- pleasure.

The grid allows to record the presence/absence, the duration and the level of intensity (1 = low, 2 = medium, 3 = high) of each *variable*.

### **The LINK Scoring Sheets**

Taking into account the context of the LINK project, two scoring sheets have been created for the LINK observers, where some operational definitions were adapted to the contexts of study carried out in the framework of LINK project. Furthermore, the observers recorded the variables by selecting a specific time interval: 5 minutes. We implemented two scoring sheets, one for video-analysis and one for real time registration, as follows:

1. The **LINK Flow Grid for video-analysis**, with detailed instructions for the observers (Addessi, 2016);
2. The **Simple Flow observation schedule** for real time registration, which also includes 2 further criteria of observation, proposed by the UK team, related to the AcE programme and key therapeutic concepts taken from Stern to further strengthen the rationale for categories

included in the observation schedule for use during LINK activities (Tarr and Addressi 2017).

#### 2.4.1.2. The Flow Scale

The *Flow Scales* (Jackson, Eklund, & Martin, 2010) is a self-report tool composed by several groups of scales for Flow assessment (State Flow and Dispositional Flow in the Long, Short and Core form) that allows to describe the characteristics of the experience of the Flow, to evaluate the Flow as a complete and coherent experience, and to grasp the individual experience of "being in the Flow core". The Unibo team proposed to use the S-FSS, Short Flow State Scale: this tool might be important to consider when the administration of brief forms is appropriate by methodological or practical limitations (e.g., time, survey space). In particular, the brief form represents a succinct measure of the global higher order flow construct to use when there might exist research or practical constraints preventing the use of the long multi-item multi-factor scale. The short scale has a composite set of items drawn from each of the following nine factors of the long form: 1) Challenge-skill balance (feeling competent enough to meet the high demands of the situation); 2) Action-awareness merging (doing things spontaneously and automatically without having to think); 3) Clear goals (having a strong sense of what one wants to do); 4) Unambiguous feedback (knowing how well one is performing during the performance itself); 5) Concentration on the task at hand (being completely focused on the task at hand); 6) Sense of control (having a feeling of total control over what one is doing); 7) Loss of self-consciousness (not worrying what others think of oneself); 8) Transformation of time (having the sense that time passes in a way that is different from normal); 9) Autotelic experience (feeling the experience to be extremely rewarding). The Short flow items were rated on a 1 (Strongly disagree) to 7 (Strongly agree) scale.

## 2.4.2 Emotion Regulation Questionnaire (ERQ)

The ERQ, Emotion Regulation Questionnaire (Gross & John, 2003), is a self report questionnaire which allows to describe the characteristics of two emotion regulation strategies: reappraisal and expressive suppression.

ERQ is a 10-item scale designed to measure respondents' tendency to regulate their emotions with cognitive reappraisal and expressive suppression. In particular, this scale is designed to assess individual differences in the habitual use of these emotion regulation strategies. Respondents answer each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). These are the instruction for the subjects:

*We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important way.*

1. \_\_\_\_ When I want to feel more *positive* emotion (such as joy or amusement), I *change what I'm thinking about*.
2. \_\_\_\_ I keep my emotions to myself.
3. \_\_\_\_ When I want to feel less *negative* emotion (such as sadness or anger), I *change what I'm thinking about*.
4. \_\_\_\_ When I am feeling *positive* emotions, I am careful not to express them.
5. \_\_\_\_ When I'm faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm.
6. \_\_\_\_ I control my emotions by *not expressing them*.
7. \_\_\_\_ When I want to feel more *positive* emotion, I *change the way I'm thinking about the situation*.
8. \_\_\_\_ I control my emotions by *changing the way I think about the situation I'm in*.
9. \_\_\_\_ When I am feeling *negative* emotions, I make sure not to express them.
10. \_\_\_\_ When I want to feel less *negative* emotion, I *change the way I'm thinking about the situation*.

**Figure 2: The items of the ERQ**

The ANNEX 1 presents the Italian validation of this questionnaire (Balzarotti, John and Gross, 2010) administered during the Impact study 2 in the Italian school Istituto Comprensivo Granaraolo dell'Emilia, partner of the Link Project.

### 2.4.3 Teachers' Focus Group

In order to collect data concerning the impact of the Link educational practices integrated by contributions from music and art-therapy together with reflections on teachers (Group Target 2), three Focus Group Meeting has benn carried out. The Focus Group is part of the research protocol coordinated by the UNIBO Team of the LINK project with the specific aim of document the deepening of some thematic areas pertinent to the project together with the procedural aspects associated with the involvement of the teachers in the class based activities proposed during the Project itself. The Focus Group can be considered as a "group-based research method led by a moderator or facilitator, focusing on a given topic to gather information useful to the research goals" (Zammuner, 2003, p. 13).

The peculiarity of the Focus Group technique is that the discussion that is open to participants is not intended to evaluate competences or skills but rather to detect situations, behaviours, attitudes, and opinions within the group of participants (Greenbaum, 1998). For research main aim, information co-constructed by the participants during the meetings, will be generalizable in the specific framework of the Focus Group itself (Acocella, 2008) by *transposing concepts* (information derived from a group is analysed in order to extrapolate conceptual structures through classifications, typologies and taxonomies) and the *extrapolation by analogy* of some assertions. In this sense the Focus Group allows to capture the social representations (Moscovici, 1981) of a group on a particular phenomenon. Each meeting is conducted by a researcher as the moderator/facilitator of the group discussion.

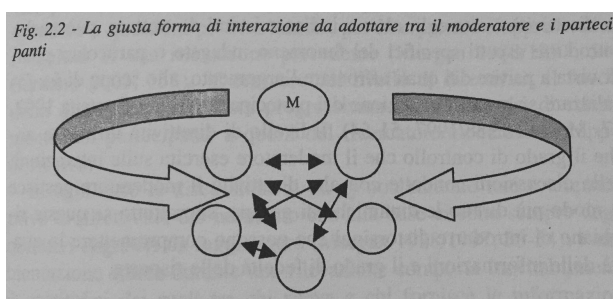


Fig. 3 The interaction among participants and moderator (M). From Acocella (2008, p. 61)

The moderator's role is to propose a discussion topic guiding, supporting, raising discussion and interaction between the participants. The moderator of the Focus Group: – regulates the discussion by explaining to the group the meeting's objectives and the tasks of each participant in relation to them by illustrating the rules to be followed during the meeting; – supports the production of information motivating the discussion in order to focus on topics pertinent to the purpose of the research (reactive, non-reactive, indirect and indirect strategies related to the following actions: to stimulate discussion, clarify the information emerged, solicit interaction, Acocella, 2008, p. 130); – facilitates interaction to ensure that all members of the group are equally involved in the discussion.

During the Link project, in order to collect data concerning educational practices integrated by contributions from music and art-therapy together with reflections about their professional role, three Focus Group meetings have been planned. 11 teachers from primary and secondary school attended the meetings together with one Music Space trainer. In particular, the objectives of the Focus Group meetings with teachers involved in the Link activities were the following:

- to analyse and observe teachers' conceptions about educational practices integrated by contributions from music and art-therapy;
- to investigate how the teachers and trainer perceive their professional role inside educational practices integrated by contributions from music and art-therapy;
- to share reflections among participants about the specific impact of Link activities and educational practices integrated by contributions from music and art-therapy on the teachers competences;
- to enhance innovative conceptions concerning education practices integrated by contributions from music and art-therapy, teachers relational expertise and learning environments able to enhance inclusive processes and students well-being.



## 2.5 Timeline

The following paragraphs present the timeline of the planned activities for the questionnaires administration, the case studies and Focus Group meetings.

### 2.5.1 *S-FSS* and *ERQ* administration

A pre and post-test design has been proposed in the framework of participatory action research. The procedure foresees several phases planned according to the following timeline:

1. August 2016: Preparation of document concerning translation, administration and validation issues about the ERQ and the S-FSS;
2. September 2016: Preparation of the materials for the IS2 (questionnaires and consent forms for parents and for teachers);
3. October 2016: Selection of the classrooms and participants according to the protocol necessary for researching young people's engagement and learning;
4. November 2016: Meeting with teachers and MSI trainers to share activities timeline;
5. November 2016: teachers pre-TEST (S-FSS administration) during the First Teacher Training meeting;
6. November – December 2016: Signature of the Ethical Agreement Document with related annexes (consent form and questionnaires) between UNIBO and ICGE;
7. December 2016: Parent Consent form distribution, signature and collection;
8. December 2016: Meeting with students of classrooms involved in the impact study 2 to introduce the researcher involved in the administration procedure, to present the general aim of the enquiry in the framework of the Link project, to request their collaboration;
9. January 2017: children and adolescents pre test (*ERQ*, *Emotion Regulation Questionnaire* and *S-FSS*, *Short Flow State Scale*);
10. December-May: Link Class Based activities carried out by the teachers in the primary and secondary classes with the trainers supervision;

11. May: teacher post test (S-FSS administration) during the last Teacher Training meeting;
12. May-June 2017: children and adolescents post test: data collection through the administration of the same questionnaires of the pre-test phase (*ERQ, Emotion Regulation Questionnaire* and *S-FSS, Short Flow State Scale*) proposed at the same classrooms involved in the pre-test.

The **ANNEX 6** illustrates the step of the administration procedure for the S-FSS and the ERQ.

### **2.5.2 The case studies**

#### Secondary school

August 2016: Flow Grid for the video observation – guide for observer and scoring sheet, document prepared by Anna Rita Addressi;

November 2016: UNIBO, MSI and ICGE several meetings in order to share the research protocol activities and the individuation of case study (music classes)

November – December 2016: preparation and signature of the Ethical Agreement Document with related annexes (consent form and questionnaires) between UNIBO and ICGE;

February 2017: first class based activities experience in the music class. UNIBO, MSI and ICGE meetings to discuss ethical and research constraints

March 2017: Unibo document to share with the project Coordinator limitations and difficulties concerning case study implementation in the music class.

#### Primary school

November 2016: UNIBO, MSI and ICGE several meetings in order to share the research protocol activities;

November – December 2016: preparation and signature of the Ethical

Agreement Document with related annexes (consent form and questionnaires) between UNIBO and ICGE;

April 2017: Training concerning the Simply Flow Observation Schedule on the occasion of the second Joint Staff Training Event (Porto)

May 2017: Unibo carry out with the ICGE teachers the training concerning the Simply Flow Observation Schedule.

May 2017: 6 sessions of teachers observation during the Link class based activities

### **2.5.3 The Teachers Focus Group**

In order to observe the development of the Link activities and the process of the teachers' conceptions change, the meetings have been carried on occasion of the beginning of the Class Based Activities Implementation following the first Teacher Training meeting (December 2016), during the central part of the academic year (February 2017) and on June 2017, after the last teacher training meeting.

In particular, the Focus Group timeline foreseen the following steps:

November 2016: UNIBO, MSI and ICGE several meetings in order to share the research protocol activities and the objectives of the Teachers Focus Group

November – December 2016: preparation and Signature of the Ethical Agreement Document with related annexes (consent form and questionnaires) between UNIBO and ICGE;

December 2016 – First Focus Group meeting (teachers signature of consent form for the audio recording of the meetings);

February 2017– Second Focus Group meeting;

June 2017– Third Focus Group meeting.

### **2.6 Data analysis**

A mixed methods design was utilized for this study, as both a quantitative approach through questionnaires and correlation research and qualitative methods were used. The independent variables explored in this study included the involvement in the LINK CLASS BASED ACTIVITIES (educational practices integrated by contributions from music and art–therapy) together

with demographic characteristics (gender, age and school degree). The dependent variables explored in the study included flow state dimension subscales (S-FSS scores) and emotion regulation strategies (reappraisal and expressive suppression ERQ scores). Flow observation schedule was used to collect data for the qualitative portion of the study to analyse the impact on vulnerable young people of the LINK CLASS BASED ACTIVITIES. Focus group was used to collect data for the qualitative portion of the study to analyse the impact on primary and secondary school teachers of the LINK CLASS BASED ACTIVITIES. Data collected from 125 secondary school students (11–13 y.o), 100 primary school students (8–9 y.o) and 11 teachers from primary and secondary school were analysed using a number of statistical procedures starting from descriptive statistics, statistical inferential tests (chi-square tests, ANOVAs, and correlation) were used to test differences among each of the independent variables by Flow state dimension subscale and emotion regulation scores. For the analysis of the teachers Focus group audio recording transcription, content automated analysis (software T-Lab, version 8.1.3) was used to examine and analyse the qualitative data in order to obtain both Correspondence analysis and Concept mapping. The transcription of the audio recording of teachers focus group meeting has been also analysed by means of the *axial coding* (Krueger, 1994). Finally, the data collected through the Simply Flow Observation Schedule, has been described in terms of scores related to the level of intensity of State Flow, Relational Flow and Sensorial Flow.

## **2.7 Main ethical issues**

The Ethical Agreement Document with related annexes illustrates the protocol, materials and activities for the IS2 has been shared and signed between UNIBO and ICGE.

The parents signed the consent form defined by the UNIBO Project Management. The children participate in a free way. The UNIBO researcher presents the Link activities and objectives during a several meetings with teachers and one preliminary meeting with students .

Several meetings have been foreseen with the teachers and trainers in order to discuss and share issues and the timeline of the protocols, to introduce and clarify the roles (researchers, trainers and teachers) and to plan with the teachers a meeting to share the main results of the study at the end of the project. The IS2 activities are conducting in the normal school setting (classroom) in the daily routines of children/students.

### 3. Results

#### 3.1 The Flow

In order to investigate the Flow, the following materials have been used:

- the *S-FSS, Short Flow State Scale* (Jackson, Eklund, & Martin, 2010).
- the *Flow Observation Grid* for LINK (Addessi, 2016, Appendix 1) and the *Simply Flow Observation Schedule* (Tarr & Addessi, 2017; Appendix 2)

##### 3.1.1 Pre and Post-test with the Short Flow State Scale (S-FSS)

The following table (Table 3) shows the preliminary data gathered with the **S-FSS concerning the nine dimensions of the state of the Flow in the Link group target 1** and the group not involved in the Link activities, related to the PRE (at the beginning of the teacher training) and POST phase (at the end of the teacher training).

**Table 3 SHORT FLOW SCORE: PRE and POST Mean for the Overall Sample and grouped by Age (Group involved in LINK CBA = grey columns; Group not involved in LINK CBA = white columns)**

<i>Participants</i>	<i>SHORT FLOW SCORE (PRE)  Mean (SD)</i>	<i>SHORT FLOW SCORE (POST)  Mean (SD)</i>	<i>SHORT FLOW SCORE (PRE)  Mean (SD)</i>	<i>SHORT FLOW SCORE (POST)  Mean (SD)</i>
<b>Overall Sample</b>	5.44	5.64	5.45	5.53
<b>Children- Primary School</b>	5.56 (.71)	5.69 (.88)	5.53 (.66)	5.57 (.70)
<b>Pre-adolescents Secondary school</b>	5.32 (.67)	5.59 (.94)	5.38 (.87)	5.49 (.66)

The data show, from the descriptive point of view, some differences between the scores of the PRE phase, at the beginning of the teacher training, and the scores of the POST phase, at the end of the teacher training. In particular data collected show an increase in the Flow scores for both children of the primary school and pre-adolescents of the secondary school. Moreover, these differences between pre and post scores are more evident in the target group involved in the Link activities than in the primary and secondary school classes not involved in the Link activities. A series of chi-square tests were conducted to examine whether the Flow scores concerning nine dimensions of Flow state was independent of each demographic variable and involvement in Link activities. A first chi-square test of independence (Flow and gender variables) was not significant ( $p=.99$ ) indicating that flow status is independent of gender. A second chi-square test of independence (flow and age) ( $p=.05$ ) was significant indicating that flow status is not independent of age. A third chi-square test of independence (Flow and involvement in the Link activities) was significant ( $p=.05$ ) indicating that flow status is not independent of participation in the Link class based activities. Moreover, the analysis of scores of each of the nine flow dimensions, shows that the group target 1 involved in the Link activities revealed the highest mean scores for five of the nine dimensions (autotelic experience, challenge-skill balance, unambiguous feedback, sense of control, and loss of self-consciousness) whereas the analysis of scores of each of the nine flow dimensions, shows that the group not involved in the Link activities revealed the highest mean scores for two of the dimensions (challenge-skill balance, unambiguous feedback).

**Concerning the S-FSS filled in by the teachers**, the questionnaire has been administrated in relation to the experience in expressive activity completed during both the first teacher training meeting (on November 2016) and the last teacher training meeting (on May 2017). The expressive activity carried out by the teachers during the first teacher training meeting was a body movement and relaxation together with music listening. The expressive activity carried out by the teachers during the last teacher training meeting was a guided music listening. The number of teachers attending the teacher

training (11 teachers) doesn't allow to adopt an inferential test. The mean score of the “body movement and relaxation together with music listening” (first teacher training meeting) was 4.36 whereas the mean score for the “music guided listening” (last teacher training meeting) was 4.11. From the descriptive point of view, the results show that the medium score of the Flow experience was in relation to both expressive activities taking into account the aggregate data and the descriptive profiles of the S-FSS illustrated for several activities in the Manual for the Flow scales (Jackson et al., 2011). The analysis of scores of each of the nine flow dimensions concerning the “body movement and relaxation together with music listening” experience, revealed the highest mean scores for 4 of the nine dimensions: challenge–skill balance (feeling competent enough to meet the high demands of the situation), loss of self–consciousness (not worrying what others think of oneself), transformation of time (having the sense that time passes in a way that is different from normal) and autotelic experience (feeling the experience to be extremely rewarding). The analysis of scores of each of the nine flow dimensions concerning the “music guided listening” experience, revealed the highest mean scores for three of the nine dimensions: challenge–skill balance (feeling competent enough to meet the high demands of the situation), loss of self–consciousness (not worrying what others think of oneself), transformation of time (having the sense that time passes in a way that is different from normal).

### **3.1.2 Case studies observation with the Simple Flow Schedule**

#### **3.1.2.1 Primary school case studies: the Simply Flow Observation Schedule**

##### **PROCEDURE**

##### Participants:

Two children with special educational need (8 y.o, primary school)

Two class teachers carried out the observation by using the Simple Flow Grid. The teachers have completed the training about the Simply Flow observation schedule offered by the UNIBO Team.

##### Class Based Activities observed:

The observation has been realised during 4 Sessions for each pupil.  
The class teacher used the Simple Flow schedule and registered at the beginning and at the end of each session.

Duration of the observation: 15 minutes.

Description of the activities for each session:

*Session 1: Listening* (song title: "Samba para ti"); recognition of the refrain; repetition of the refrain; recognition of the verse; repetition of the verse;

*Session 2: free exploration of the maracas.* Elements observed: tempo (b.p.m., bit per minutes) and intensity; use of the maracas playing the song "Samba para ti". Individual observation and observation within the peer group;

*Session 3: Listening* (song title: "Dubadapda"). Recognition of the verse; Repetition of the four verses;

*Session 4: Body and movement free exploration.* Elements observed: rhythm and posture; gesture and words of the verse association.

## DATA COLLECTED

The following figures (Fig. 4 and Fig. 5) present the Observation schedule filled in by the teachers class during the 4 sessions of Link activities for both children observed.

Child 1-First session				Child 1- Second session			
<p>Erasmus+ Learning in a New Key Engaging Vulnerable Young People in School Education. Agreement No: 2015-1-UK01-KA201-013752</p> <p>Simplified version</p> <p>Observations re FLOW variables in CLASS</p> <p>1= Low Intensity 2 = Medium Intensity 3 = High Intensity</p> <p>DATE</p> <p>Time Intervals</p> <p>Start End</p> <p><b>Focused attention</b></p> <p>looks carefully at and explores the musical instrument and /or is focused on particular musical ideas, thereby perpetuating activity with concentration</p> <p>explores gestures to produce sounds, gazing at the hand, fingers</p> <p>listens attentively to own productions and the production of the partner(s).</p> <p><b>Clear cut feedback</b></p> <p>listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something;</p> <p><b>Clear Goals</b></p> <p>shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea</p> <p>shows herself/himself to have the aim of exploring physical gestures to produce sounds;</p> <p>has the goal of discovering the rules of interaction and musical dialogue with the partner(s) and / or of teaching a particular musical pattern</p> <p><b>Control of situation</b></p> <p>understands that he/she can start/interrupt the performance or exploration when he/she wants;</p> <p>the movements and or explorations are well controlled, both during the listening and playing;</p> <p>he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking</p> <p><b>Pleasure</b></p> <p>smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes</p> <p>speaks with the partner(s) and shares with him/her/ them the joy through words and gestures;</p> <p>State of FLOW Start Point = 1/18 = % End point = 2/18 = %</p> <p>Sensory FLOW Start Point = 1/18 = % End Point = 1/18 = %</p> <p>Relational FLOW Start Point = 1/18 = % End Point = 1/18 = %</p>				<p>Erasmus+ Learning in a New Key Engaging Vulnerable Young People in School Education. Agreement No: 2015-1-UK01-KA201-013752</p> <p>Simplified version</p> <p>Observations re FLOW variables in CLASS</p> <p>1= Low Intensity 2 = Medium Intensity 3 = High Intensity</p> <p>DATE</p> <p>Time Intervals</p> <p>Start End</p> <p><b>Focused attention</b></p> <p>looks carefully at and explores the musical instrument and /or is focused on particular musical ideas, thereby perpetuating activity with concentration</p> <p>explores gestures to produce sounds, gazing at the hand, fingers</p> <p>listens attentively to own productions and the production of the partner(s).</p> <p><b>Clear cut feedback</b></p> <p>listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something;</p> <p><b>Clear Goals</b></p> <p>shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea</p> <p>shows herself/himself to have the aim of exploring physical gestures to produce sounds;</p> <p>has the goal of discovering the rules of interaction and musical dialogue with the partner(s) and / or of teaching a particular musical pattern</p> <p><b>Control of situation</b></p> <p>understands that he/she can start/interrupt the performance or exploration when he/she wants;</p> <p>the movements and or explorations are well controlled, both during the listening and playing;</p> <p>he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking</p> <p><b>Pleasure</b></p> <p>smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes</p> <p>speaks with the partner(s) and shares with him/her/ them the joy through words and gestures;</p> <p>State of FLOW Start Point = 1/18 = % End point = 3/18 = %</p> <p>Sensory FLOW Start Point = 1/18 = % End Point = 4/18 = %</p> <p>Relational FLOW Start Point = 1/18 = % End Point = 1/18 = %</p>			



Child 1-Third session				Child 1-Fourth session			
<p>Erasmus+ Learning in a New Key Engaging Vulnerable Young People in School Education. Agreement No: 2015-1-UK01-KA201-013752</p> <p>Simplified version</p> <p>Observations re FLOW variables in CLASS DATE Time Intervals</p> <p>1= Low Intensity 2 = Medium Intensity 3 = High Intensity</p> <p><b>Focussed attention</b> Start End</p> <p>looks carefully at and explores the musical instrument and /or is focused on particular musical idea, thereby perpetuating activity with concentration 1 2</p> <p>explores gestures to produce sounds, gazing at the hand, fingers 1 2</p> <p>listens attentively to own productions and the production of the partner(s). 2 2</p> <p><b>Clear cut feedback</b> Start End</p> <p>listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something. 2 2</p> <p><b>Clear Goals</b> Start End</p> <p>shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea 1 2</p> <p>shows herself/himself to have the aim of exploring physical gestures to produce sounds: 2 3</p> <p>has the goal of discovering the rules of interaction and musical dialogue with the partner/s and / or of teaching a particular musical pattern 1 2</p> <p><b>Control of situation</b> Start End</p> <p>understands that he/she can start/interrupt the performance or exploration when he/she wants; 1 1</p> <p>the movements and or explorations are well controlled, both during the listening and playing; 1 1</p> <p>he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking 1 2</p> <p><b>Pleasure</b> Start End</p> <p>smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes 2 1</p> <p>speaks with the partner(s) and shares with him/her/ them the joy through words and gestures; 2 2</p> <p>State of FLOW Start Point = 42.2 / 11/36 = % End point = 50.0 / 20/36 = %</p> <p>Sensory FLOW Start Point = 3.3 / 18 = % End Point = 11.1 / 18 = %</p> <p>Relational FLOW Start Point = 0 / 18 = % End Point = 2.2 / 18 = %</p>				<p>Erasmus+ Learning in a New Key Engaging Vulnerable Young People in School Education. Agreement No: 2015-1-UK01-KA201-013752</p> <p>Simplified version</p> <p>Observations re FLOW variables in CLASS DATE Time Intervals</p> <p>1= Low Intensity 2 = Medium Intensity 3 = High Intensity</p> <p><b>Focussed attention</b> Start End</p> <p>looks carefully at and explores the musical instrument and /or is focused on particular musical idea, thereby perpetuating activity with concentration 1 2</p> <p>explores gestures to produce sounds, gazing at the hand, fingers 3 3</p> <p>listens attentively to own productions and the production of the partner(s). 1 2</p> <p><b>Clear cut feedback</b> Start End</p> <p>listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something. 2 2</p> <p><b>Clear Goals</b> Start End</p> <p>shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea 1 2</p> <p>shows herself/himself to have the aim of exploring physical gestures to produce sounds: 2 2</p> <p>has the goal of discovering the rules of interaction and musical dialogue with the partner/s and / or of teaching a particular musical pattern 1 2</p> <p><b>Control of situation</b> Start End</p> <p>understands that he/she can start/interrupt the performance or exploration when he/she wants; 1 1</p> <p>the movements and or explorations are well controlled, both during the listening and playing; 2 2</p> <p>he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking 1 2</p> <p><b>Pleasure</b> Start End</p> <p>smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes 2 2</p> <p>speaks with the partner(s) and shares with him/her/ them the joy through words and gestures; 1 2</p> <p>State of FLOW Start Point = 18.06 / 18 = % End point = 24.06 / 36 = %</p> <p>Sensory FLOW Start Point = 11.1 / 18 = % End Point = 13.3 / 18 = %</p> <p>Relational FLOW Start Point = 7 / 18 = % End Point = 11 / 18 = %</p>			

**Fig. 4. CHILD 1: observation schedules for the 4 sessions of Link activities**

Child 2-First session				Child 2- Second session			
<p>Erasmus+ Learning in a New Key Engaging Vulnerable Young People in School Education. Agreement No: 2015-1-UK01-KA201-013752</p> <p>Simplified version</p> <p>Observations re FLOW variables in CLASS DATE Time Intervals</p> <p>1= Low Intensity 2 = Medium Intensity 3 = High Intensity</p> <p><b>Focussed attention</b> Start End</p> <p>looks carefully at and explores the musical instrument and /or is focused on particular musical idea, thereby perpetuating activity with concentration 1 1</p> <p>explores gestures to produce sounds, gazing at the hand, fingers 1 2</p> <p>listens attentively to own productions and the production of the partner(s). 2 1</p> <p><b>Clear cut feedback</b> Start End</p> <p>listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something. 1 1</p> <p><b>Clear Goals</b> Start End</p> <p>shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea 1 1</p> <p>shows herself/himself to have the aim of exploring physical gestures to produce sounds: 1 1</p> <p>has the goal of discovering the rules of interaction and musical dialogue with the partner/s and / or of teaching a particular musical pattern 1 2</p> <p><b>Control of situation</b> Start End</p> <p>understands that he/she can start/interrupt the performance or exploration when he/she wants; 2 2</p> <p>the movements and or explorations are well controlled, both during the listening and playing; 1 1</p> <p>he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking 1 1</p> <p><b>Pleasure</b> Start End</p> <p>smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes 1 2</p> <p>speaks with the partner(s) and shares with him/her/ them the joy through words and gestures. 1 1</p> <p>State of FLOW Start Point = 11.06 / 36 = % End point = 16.06 / 36 = %</p> <p>Sensory FLOW Start Point = 6 / 18 = % End Point = 2.2 / 18 = %</p> <p>Relational FLOW Start Point = 3 / 18 = % End Point = 3 / 18 = %</p>				<p>Erasmus+ Learning in a New Key Engaging Vulnerable Young People in School Education. Agreement No: 2015-1-UK01-KA201-013752</p> <p>Simplified version</p> <p>Observations re FLOW variables in CLASS DATE Time Intervals</p> <p>1= Low Intensity 2 = Medium Intensity 3 = High Intensity</p> <p><b>Focussed attention</b> Start End</p> <p>looks carefully at and explores the musical instrument and /or is focused on particular musical idea, thereby perpetuating activity with concentration 1 1</p> <p>explores gestures to produce sounds, gazing at the hand, fingers 2 2</p> <p>listens attentively to own productions and the production of the partner(s). 2 2</p> <p><b>Clear cut feedback</b> Start End</p> <p>listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something. 2 1</p> <p><b>Clear Goals</b> Start End</p> <p>shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea 1 1</p> <p>shows herself/himself to have the aim of exploring physical gestures to produce sounds: 1 2</p> <p>has the goal of discovering the rules of interaction and musical dialogue with the partner/s and / or of teaching a particular musical pattern 1 2</p> <p><b>Control of situation</b> Start End</p> <p>understands that he/she can start/interrupt the performance or exploration when he/she wants; 2 2</p> <p>the movements and or explorations are well controlled, both during the listening and playing; 1 2</p> <p>he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking 1 2</p> <p><b>Pleasure</b> Start End</p> <p>smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes 2 2</p> <p>speaks with the partner(s) and shares with him/her/ them the joy through words and gestures; 1 1</p> <p>State of FLOW Start Point = 17.06 / 36 = % End point = 20.06 / 36 = %</p> <p>Sensory FLOW Start Point = 5 / 18 = % End Point = 4.4 / 18 = %</p> <p>Relational FLOW Start Point = 3 / 18 = % End Point = 4.4 / 18 = %</p>			

## Child 2-Third session

Learning in a New Key  
Engaging Vulnerable Young People in School Education  
Agreement No: 2015-1-UK01-KA201-013752

Simplified version

### Observations re FLOW variables in CLASS

1= Low Intensity 2 = Medium Intensity 3 = High Intensity

DATE

Time Intervals

Focussed attention	Start	End
looks carefully at and explores the musical instrument and for is focused on particular musical idea, thereby perpetuating activity with concentration	1	1
explores gestures to produce sounds, gazing at the hand, fingers	1	2
listens attentively to own productions and the production of the partner(s).	1	1
Clear cut feedback	Start	End
listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something;	1	1
Clear Goals	Start	End
shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea	1	1
shows herself/himself to have the aim of exploring physical gestures to produce sounds:	1	1
has the goal of discovering the rules of interaction and musical dialogue with the partners and / or of teaching a particular musical pattern	1	2
Control of situation	Start	End
understands that he/she can start/interrupt the performance or exploration when he/she wants;	1	2
the movements and or explorations are well controlled, both during the listening and playing;	1	1
he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking	1	2
Pleasure	Start	End
smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes	1	2
speaks with the partner(s) and shares with him/her them the joy through words and gestures;	1	1

State of FLOW Start Point = 11/06 = 33% End point = 11/06 = 44%

Sensory FLOW Start Point = 6/18 = 33% End Point = 8/18 = 44%

Relational FLOW Start Point = 6/18 = 33% End Point = 3/18 = 16%

## Child 2-Fourth session

Learning in a New Key  
Engaging Vulnerable Young People in School Education  
Agreement No: 2015-1-UK01-KA201-013752

Simplified version

### Observations re FLOW variables in CLASS

1= Low Intensity 2 = Medium Intensity 3 = High Intensity

DATE

Time Intervals

Focussed attention	Start	End
looks carefully at and explores the musical instrument and for is focused on particular musical idea, thereby perpetuating activity with concentration	2	2
explores gestures to produce sounds, gazing at the hand, fingers	3	2
listens attentively to own productions and the production of the partner(s).	1	2
Clear cut feedback	Start	End
listens carefully and reacts to the instrument by self-correction, smiling, showing expressions of puzzlement, joy, surprise, saying something;	2	2
Clear Goals	Start	End
shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea	1	1
shows herself/himself to have the aim of exploring physical gestures to produce sounds:	1	2
has the goal of discovering the rules of interaction and musical dialogue with the partners and / or of teaching a particular musical pattern	1	2
Control of situation	Start	End
understands that he/she can start/interrupt the performance or exploration when he/she wants;	1	2
the movements and or explorations are well controlled, both during the listening and playing;	1	2
he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking	2	2
Pleasure	Start	End
smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes	1	2
speaks with the partner(s) and shares with him/her them the joy through words and gestures;	1	1

State of FLOW Start Point = 11/06 = 44% End point = 22/06 = 55%

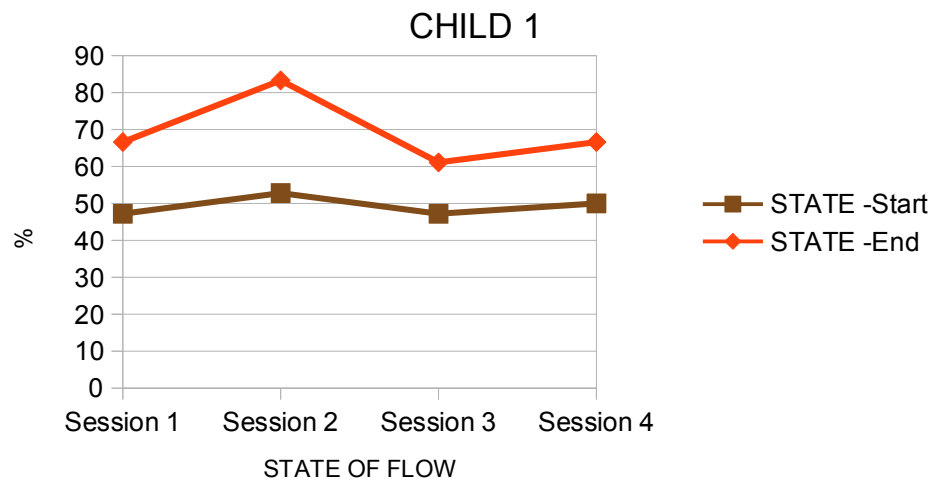
Sensory FLOW Start Point = 3/18 = 16% End Point = 9/18 = 50%

Relational FLOW Start Point = 3/18 = 16% End Point = 2/18 = 11%

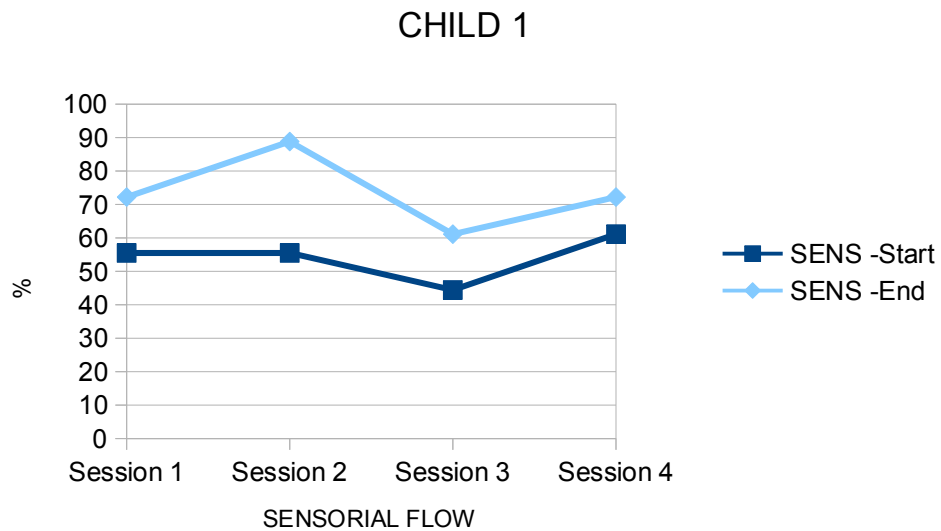
Fig. 5. CHILD 2: observation schedules for the 4 sessions of Link activities

## DATA ANALYSIS

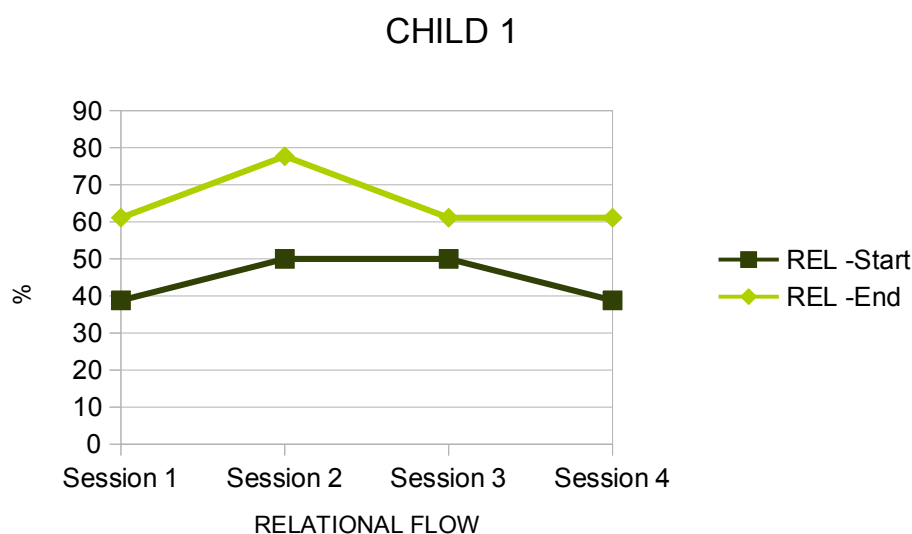
The following three figures (Fig. 6,7,8) show the level of intensity (from 1 to 3) of the State, the Sensory and the Relational Flow of the CHILD 1 observed in real time by the class teacher and scored at the beginning and at the end of each Link activity (4 sessions). These scores have been transformed as percentage according to the procedure foreseen (see the Novalis Trust documents about the Simply Flow Observation Schedule development, implementation and scoring).



**Fig. 6 CHILD 1: Flow State intensity at the beginning and at the end of activity (four sessions)**



**Fig. 7 CHILD 1: Sensory Flow at the beginning and at the end of activity (four sessions)**



**Fig. 8 CHILD 1: Relational Flow at the beginning and at the end of activity (four sessions)**

The following Table (Table 1) and the following figure (Fig. 8) show the level of intensity (from 1 to 3) of the State, the Sensory and the Relational Flow of the CHILD 1 observed in real time by the class teacher and scored at the beginning and at the end of each Link activity (4 sessions).

These scores have been transformed as percentage according to the procedure foreseen (see the Novalis Trust documents concerning the Flow about the Observation Schedule development and implementation).

**Tab.1 CHILD 1: State, Sensorial (SENS) and Relational (REL) Flow  
 level of intensity scored at the beginning (START) and at the End of activity**

	STATE -Start	STATE -End	SENS -Start	SENS -End	REL -Start	REL -End
Session 1	47,2	66,6	55,5	72,2	38,8	61,1
Session 2	52,8	83,3	55,5	88,8	50	77,7
Session 3	47,2	61,1	44,4	61,1	50	61,1
Session 4	50	66,6	61,1	72,2	38,8	61,1

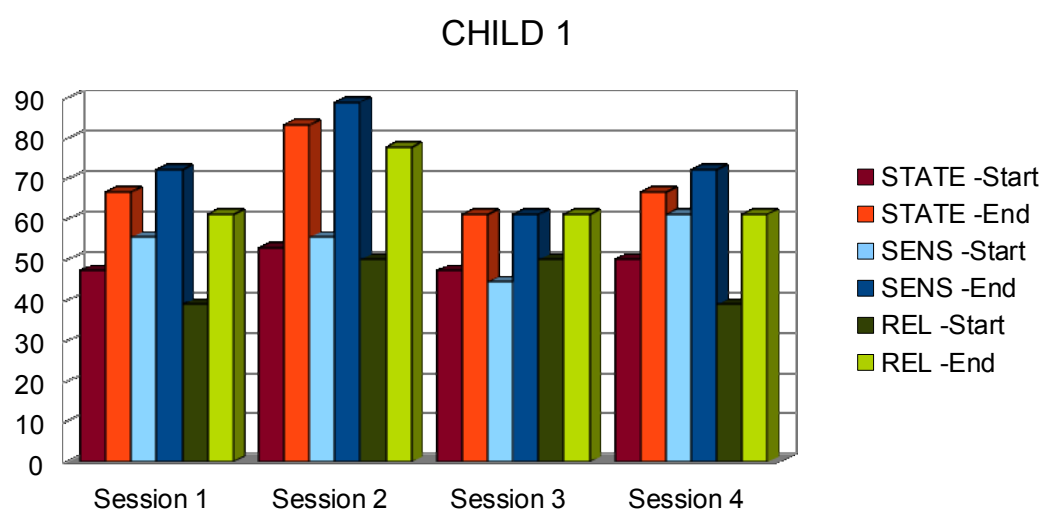


Fig. 9. CHILD 1: Flow State, Sensorial Flow and Relational Flow at the beginning and at the end of activity (4 sessions)

The figures show that, during the four sessions, the level of intensity scored at the end of activity of State, Sensory and Relation Flow is higher than the level of intensity scored at the beginning of activity. In particular the difference between the level of intensity at the beginning and at the end is more evident for the session 2 (activity: *Free exploration of the maracas*): in this session the percentage that describes the relation between the level of intensity observed and the max value of intensity foreseen (level 3) is higher than other percentage observed at the end of the activity. Furthermore, the Fig. 8 shows that the highest value is the percentage of Sensorial Flow at the end of the session 2, the *Free exploration of the maracas*.

The following three figures (Fig. 10,11,12) show the level of intensity (from 1 to 3) of the State, the Sensory and the Relational Flow of the CHILD 2 observed in real time by the class teacher and scored at the beginning and at the end of each Link activity (4 sessions). These scores have been transformed as percentage according to the procedure foreseen (see the Novalis Trust documents concerning the Flow about the Observation Schedule development and implementation).

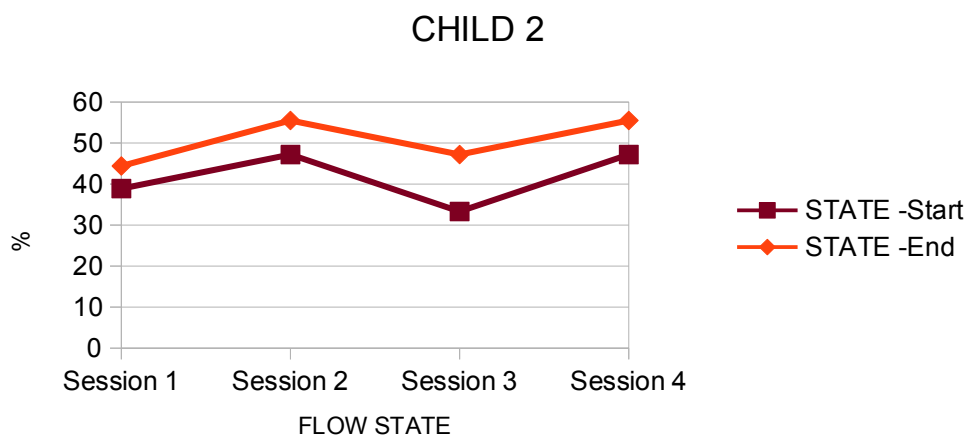


Fig. 10. CHILD 2: Flow State intensity at the beginning and at the end of activity (four sessions)

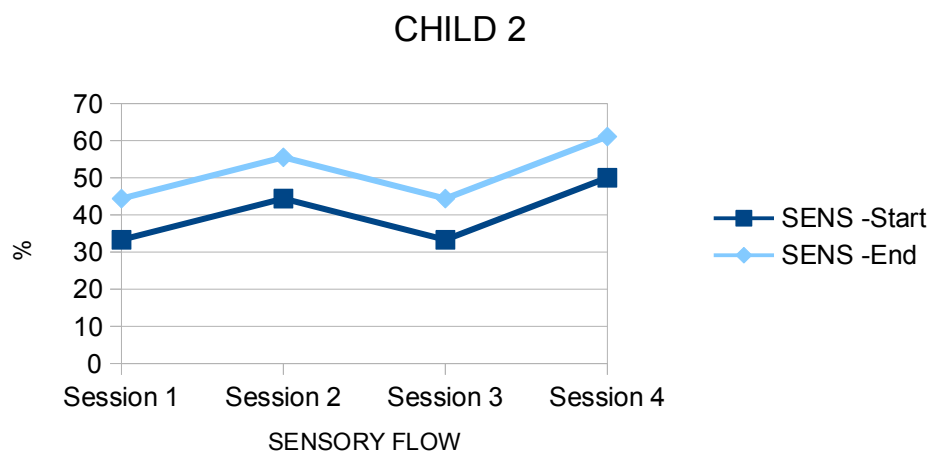


Fig. 11. CHILD 1: Sensory Flow at the beginning and at the end of activity (four sessions)

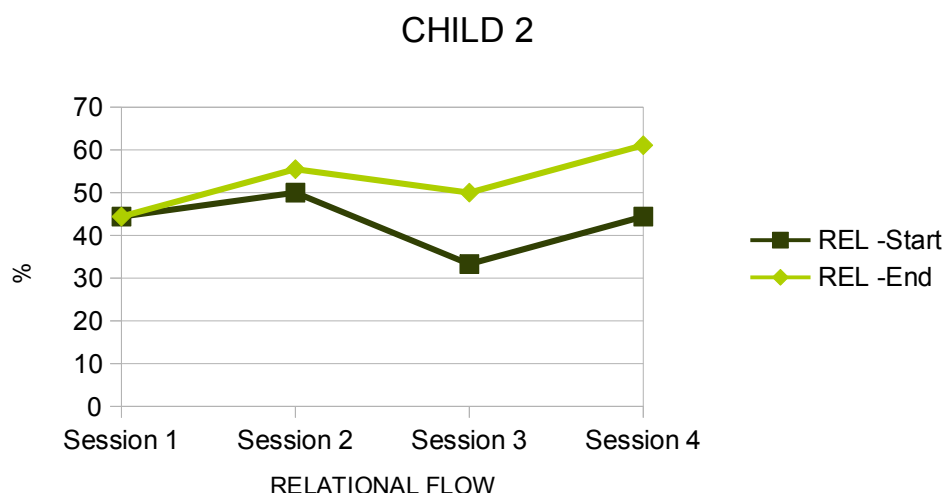


Fig. 12. CHILD 2: Relational Flow at the beginning and at the end of activity (four sessions)

The following Table (Table 2) and the following figure (Fig. 13) show the level of intensity (from 1 to 3) of the State, the Sensory and the Relational Flow of the CHILD 2 observed in real time by the class teacher and scored at the beginning and at the end of each Link activity (4 sessions).

These scores have been transformed as percentage according to the procedure foreseen (see the Novalis Trust documents concerning the Flow about the Observation Schedule development and implementation).

**Tab.2 CHILD 1: State, Sensorial (SENS) and Relational (REL) Flow**

**level of intensity scored at the beginning (START) and at the End of activity**

	STATE -Start	STATE -End	SENS -Start	SENS -End	REL -Start	REL -End
<b>Session 1</b>	38,9	44,4	33,3	44,4	44,4	44,4
<b>Session 2</b>	47,2	55,5	44,4	55,5	50	55,5
<b>Session 3</b>	33,3	47,2	33,3	44,4	33,3	50
<b>Session 4</b>	47,2	55,5	50	61,1	44,4	61,1

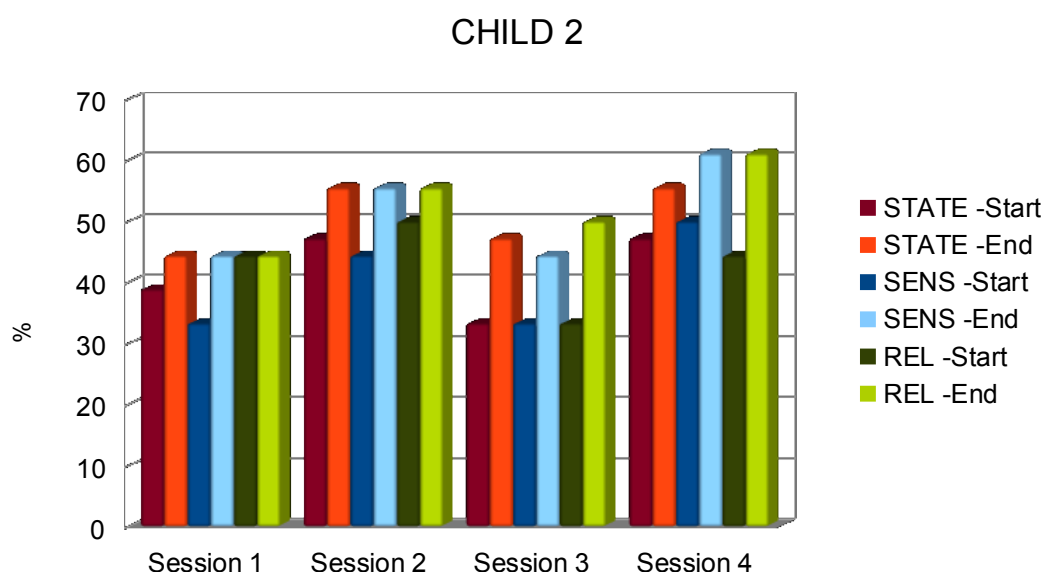


Fig. 13.CHILD 2: State, sensorial and Relational Flow at the beginning and at the end of activity (4 sessions)

The figures show that, during the four sessions, the level of intensity scored at the end of activity of State, Sensory and Relation Flow is higher than the level of intensity scored at the beginning of activity. The only one exception is the case of the Relational Flow during the first session. In particular the difference between the level of intensity at the beginning and at the end is more evident for the session 3 (activity: *Song listening*) and for the session 4 (activity: *Body and movement free exploration*) concerning the Relational Flow. During these sessions the percentage that describes the relation between the level of intensity observed and the max value of intensity foreseen (level 3) is higher than the percentage observed at the beginning of the activity. Furthermore, the Fig. 12 shows the following specific aspects: 1) during the session 4 (activity: *Body and movement free exploration*) the Relational Flow and the Sensorial Flow scored at the end of the activities represent maximum values; 2) the Flow scores at the end of the activity increase gradually from the first session to the second and the fourth session and decrease during the third session.

These data are coherent with the comments and reflections of the teachers about the children involvement in the activities proposed. Teachers observed



increasing level of involvement, attention and concentration during the activity coherently with high level of the Relational and Sensory Flow scored by the Observation schedule.

### **3.1.2.2. Secondary school case studies: reflections concerning ethical and research constraints**

In order to develop a case study, in the general framework of the ICGE classes involved in the LINK Project, the UNIBO Team have selected one specific class of the secondary school, the music class courses (oboe and guitar).

The classes at the ICGE have 20-25 pupils and vulnerable young people are integrated into this classroom organisation. Taking into account this organisation, the UNIBO Team have planned to carry out the video recording for the Flow video analysis through the Flow Grid by Addessi, observing music classes students attending small group lessons.

The Music Space trainers, together with the music teachers (one guitar teacher and one oboe teacher), have planned a specific Link Class Based Activity (CBA) for 6 students 13 y.o. with emotional and communication disease. This CBA (6 lessons, 30 minutes each, from the end of January to March) has been selected as a proper setting to collect video recording in order to allow the Flow video analysis. After the preliminary meeting with students, several ethical issues are emerged. This constraints have been confirmed on the occasion of the first music lesson on February 2017. At the end of this lesson the UNIBO researcher have proposed the ER and the FLOW questionnaires administration to the students.

On the occasion of this lesson and subsequent discussions, the following problems emerged:

- 1) the first one has been linked to the presence, into the classroom at the end of the lesson, of other younger students waiting for their lessons;
- 2) the second one was linked to the impossibility for the student to entirely attend the 30 min lesson because the lesson time schedule has foreseen another course/lesson before the music class (the students sometimes were late);
- 3) the third one concerned the relational aspects. In particular, the teachers, the trainers and the researcher have observed that the introduction of a videocamera in this classroom, differently from another classrooms where teachers have collect video recording to document their CBA with the whole class, represented a problematic “presence”. The behavioural aspects disconcerting and disturbing of an adolescent

and his emotional aspects needed proper time to create an educational relationship in a effectively, respectfully and safely way. The characteristics of this group of students have stimulated a specific reflection on ethical codes in education and in research, consistency and coherently with the Link Project.

Consequently, UNIBO Team could not not carry out the video recording in this educational setting. The UNIBO has shared this change with the Coordinator introducing this narrative report on the IS2 Summary document (March 2017).

### **3.1.3 General conclusions about Flow in Italy**

The results of S-FSS questionnaire shows an increase in the Flow scores more evident in the target group involved in the Link activities than in the primary and secondary school classes not involved in the Link activities. The chi-square test of independence (Flow and involvement in the Link activities) was significant ( $p=.05$ ) indicating that flow status is not independent of participation in the Link class based activities. Moreover, the analysis of scores of each of the nine flow dimensions, shows that children involved in the Link activities revealed the highest mean scores for five of the nine dimensions (autotelic experience, challenge-skill balance, unambiguous feedback, sense of control, and loss of self-consciousness) whereas the children not involved in the Link activities revealed the highest mean scores for two of the 9 dimensions (challenge-skill balance, unambiguous feedback). These results can support the hypothesis that the LINK training activities with the children can create a flow optimal experience in children and, consequently, that the LINK training activity realised by the teachers that attending the LINK program was effective and allowed teachers to acquire practical and pedagogical tools for creating well-being and creative experience in classroom context.

The results of observation of case-studies with the Simple Flow grid also show that the children flow state increases over the activities based on LINK project. However, it is not possible to generalise these results, not only because of the few number of participants, but also because we cannot compare these data with data collected in normal classroom activities. However, we can observe that these data are coherent with the comments and reflections of the teachers about the children involvement in the activities proposed. The teachers reported childrens' increasing level of involvement, attention and concentration during the activity, coherently with high level

of the Relational and Sensory Flow scored by the Observation schedule. It is interesting to note that the teachers learnt to use a tool to observe flow state in children. We believe that this is the mean result of these case-studies approach, and we propose to include the Simple Flow Grid in the LINK Teacher Tool Kit.

## 3.2 Emotion Regulation

### 3.2.1 Pre and Post-test with the Emotion Regulation questionnaire (ERQ)

The ERQ, emotion regulation questionnaire has been administered in order to collect data about the impact on Target Group 1 (children and adolescents).

The following tables show the preliminary data gathered with the ERQ concerning the two emotion regulation strategies (PRE and POST phase) in both the Link group target 1 and the group not involved in the Link activities.

**Table 4 Expressive suppression (ES) and Cognitive Reappraisal (CR): PRE and POST Mean (and standard deviation, SD) by Age and Sex (group involved in Link CBA)**

<i>Participants</i>	<i>ES (Pre) Mean (SD)</i>	<i>ES (Post) Mean (SD)</i>	<i>CR (Pre) Mean (SD)</i>	<i>CR (Post) Mean (SD)</i>
<b>Children- Primary School</b>	10.22 (2.71)	8.07 (2.88)	20.89 (3.81)	23.51 (3.93)
<b>Pre-adolescents Secondary school</b>	10.41 (2.95)	8.01(2.82)	21.28 (3.72)	24.76 (3.73)

**Table 5 Expressive suppression (ES) and Cognitive Reappraisal (CR): PRE and POST Mean (and standard deviation, SD) by Age and Sex (group not involved in Link CBA)**

<i>Participants</i>	<i>ES (Pre) Mean (SD)</i>	<i>ES (Post) Mean (SD)</i>	<i>CR (Pre) Mean (SD)</i>	<i>CR (Post) Mean (SD)</i>
<b>Children- Primary School</b>	10.18 (3.02)	9.67 (2.71)	22.30 (2.99)	23.35 (3.50)
<b>Pre-adolescents Secondary school</b>	10.36 (2.54)	8.79 (2.79)	22.86 (3.01)	24.06 (3.40)

The data show, from the descriptive point of view, some differences between the the scores of the PRE phase, at the beginning of the teacher training, and

the scores of the POST phase, at the end of the teacher training. In particular data collected show a scores reduction in expressive suppression and an interesting effect on cognitive reappraisal for both children of the primary school and pre-adolescents of the secondary school. Moreover, these differences between pre and post scores concerning expressive suppression and cognitive reappraisal, are more evident in the target group involved in the Link activities than in the primary and secondary school classes not involved in the Link activities.

The multivariate analysis of variance, which was performed to examine gender and age differences, indicated the important effect of gender for the expressive suppression subscale ( $p < 0.01$ ). The univariate analyses indicated significant differences in expressive suppression between girls and boys, with boys using this strategy more than girls ( $p < 0.05$ ). As regards the effect of the interaction, the analysis indicated that girls of the secondary school obtain practically the same score in the expressive suppression dimension, regardless of their age. Nonetheless, the girls' scores were lower than that of the boys, who use this strategy to a larger extent.

### **3.3 The impact on teachers' pedagogical conceptions**

#### **3.3.1 The Teachers Focus Group**

In order to observe the development of the Link activities and the process of the teachers' conceptions change, the meetings have been carried on occasion of the beginning of the Class Based Activities Implementation following the first Teacher Training meeting (December 2016), during the central part of the academic year (February 2017) and on June 2017, after the last teacher training meeting.

##### First meeting

During the first meeting, the moderator presented the main aim and specific objectives of the Focus Group, explained the general organization and meeting structures, illustrated participants consent form for the meetings audio recording. The moderator also presented: the role of participants, her role as discussion facilitator and the following rules of interaction during the

meeting necessary to guarantee involvement of each participants in the group discussion:

- 1) respecting shifts in the conversation;*
- 2) welcoming and listening to each opinion in its own specificity, considering that there are no right or wrong answers;*
- 3) the possibility to constructively welcome the diversity / divergence of opinions among the participants;*
- 4) the absence of a pre-ordered order of interventions since all the participants can intervene at any time they wish and may intervene several times;*
- 5) the importance of acting in a consistent and pertinent manner with the subject matter;*
- 6) the possibility to change ideas during the discussion without the fear of being judged inconsistent.*

For the second part of the meeting the themes, questions and stimulus concerned the relation between creativity and well-being of students in learning and educational contexts.

Ending questions in order to highlight and summarize the aspects emerged from the discussion. The moderator asked to indicate the most significant elements to identify both the group's definitive position on what emerged from the discussion concerning the relation between creativity and well-being of students in learning and educational contexts. Finally the moderator offered a synthesis of the group discussion asking about the adequacy of the proposed synthesis.

### Second meeting

The moderator recalled the role of participants, her role as discussion facilitator and the rules of interaction during the meeting necessary to guarantee involvement of each participants in the group discussion.

For the second part of the meeting the themes, questions and stimulus concerned the relation between learning processes and both functional and dysfunctional emotion regulation strategies of vulnerable young people.

Ending questions in order to highlight and summarize the aspects emerged

from the discussion. The moderator asked to indicate the most significant elements to identify both the group's definitive position on what emerged from the discussion concerning the relation between emotion regulation and well-being of students in learning and educational contexts. Finally the moderator offered a synthesis of the group discussion asking about the adequacy of the proposed synthesis.

### Third meeting

The moderator recalled the role of participants, her role as discussion facilitator and the rules of interaction during the meeting necessary to guarantee involvement of each participants in the group discussion.

For the second part of the meeting the themes, questions and stimulus concerned the teachers professional role and the new competences developed during the Link project. In order to stimulate the group discussion, the moderator presented the following list of competences by Addessi (2004) and related references.

**Tab.6 List of music teachers competences (from Addessi, 2004)**

### Il profilo professionale dell'insegnante (da Addessi, 2004)

#### Competenze di base, competenze relative alla disciplina:

- conosce e sa esplorare le qualità sonore dell'ambiente, della propria voce, degli oggetti e degli strumenti; sa inventare e improvvisare semplici sequenze musicali;
- conosce differenti repertori musicali e sa utilizzare alcuni strumenti di base di interpretazione e di analisi auditiva di brani musicali;
- conosce e sa utilizzare criticamente alcuni elementi della propria autobiografia musicale;
- possiede ed è consapevole delle proprie abilità comunicative di tipo sonoro.

#### Competenze tecnico-professionali, relative alla professione insegnante:

- conosce gli elementi principali dello sviluppo psicologico musicale dei bambini 0-10 anni;
- conosce alcuni elementi sociologici di diffusione e consumo della musica nella fascia di età 0-10 anni;
- conosce e sa utilizzare in contesto didattico alcune tecniche di osservazione delle condotte sonore-musicali dei bambini;
- conosce e sa utilizzare alcuni strumenti professionali per interagire musicalmente con il/i bambino/i, sostenere, rafforzare e promuovere la loro musicalità;
- conosce e sa utilizzare una o più proposte metodologiche per progettare percorsi di educazione al suono e alla musica nella scuola dell'infanzia e nella scuola primaria, in continuità e in progressione con la scuola dell'infanzia e con la scuola media;
- e' in grado di compiere valutazioni e verifiche del proprio operato nell'ambito dell'educazione al suono e alla musica e di documentarlo;
- e' in grado di rielaborare in stile sperimentale i contenuti e le metodologie acquisiti.

#### Competenze trasversali, relazioni con altri soggetti professionali, enti, agenzie, ecc.:

- conosce e sa utilizzare alcuni strumenti di ricerca nel campo dell'educazione musicale nella scuola dell'infanzia e nella scuola primaria;
- conosce alcune realtà formali e informali di educazione al sonoro presenti sul territorio, regionale e nazionale;
- sa mettersi in relazione con enti, agenzie sul territorio e altre figure professionali esperte di musica, interne o esterne ai servizi.
- Conosce alcuni strumenti, enti e agenzie di formazione e aggiornamento per l'educazione musicale nella scuola dell'infanzia e scuola primaria.

#### Referenze bibliografiche:

Addessi A.R. (2004). "Le competenze musicali e professionali degli insegnanti della scuola di base". In A. Coppi (cur.). *REMUS: studi e ricerche sulla formazione musicale. Atti e Documenti*. Morlacchi, Perugia, pp. 9-23 (vedi anche l'articolo nel rivista *Infanzia*, no. 2, 2008, pp. 85-89).

Addessi, A.R. (2017). *L'osservazione come strumento di ricerca, d'insegnamento e di formazione nell'esperienza e nell'educazione musicale dei bambini e degli educatori*. In L. Balduzzi, T. Pironi (Eds). *L'osservazione al nido: una lente a più dimensioni per educare lo sguardo*, FrancoAngeli, Milano, pp. 145-164.

Balduzzi, L., Pironi, T. (a cura di)(2017). *L'osservazione al nido: una lente a più dimensioni per educare lo sguardo*, FrancoAngeli, Milano.

Finally, the last part of the meeting, moderator proposed ending questions in order to highlight and summarize the aspects emerged from the discussion. The moderator asked to indicate the most significant elements to identify both the group's definitive position on what emerged from the discussion concerning the teachers competences. The moderator offered a synthesis of the group discussion asking about the adequacy of the proposed synthesis.

In order to prepare data for the analysis, “empty” words has been detected and deleted and the key words has been listed in alphabetical order. The following example (Tab. 7) concerns a section of this kind of key words list (words are Italian words to respect and show the correct alphabetical order).

Tab.7 Example of a key words alphabetical order (from the first meeting)

<b>Meeting 1</b>	
<i>abbiamo</i>	<i>pensare</i>
<i>alunni</i>	<i>pensiero</i>
<i>apprendimento</i>	<i>penso</i>
<i>ascolto</i>	<i>polarità</i>
<i>bambini</i>	<i>possiamo</i>
<i>bisogni</i>	<i>posso</i>
<i>cercare</i>	<i>potete</i>
<i>creativi</i>	<i>processi</i>
<i>cratività</i>	<i>relazione</i>
<i>cose</i>	<i>ricerca</i>
<i>fai</i>	<i>richieste</i>
<i>farlo</i>	<i>rispetto</i>
<i>disagio</i>	<i>scuola</i>
<i>esperienza</i>	<i>sentito</i>
<i>fatica</i>	<i>so</i>
<i>forma</i>	<i>stimoli</i>
<i>gioco</i>	<i>tema</i>
<i>insegnante</i>	<i>trovare</i>
<i>lezione</i>	<i>vedere</i>
<i>modo</i>	<i>volte</i>
<i>momento</i>	<i>vorrei</i>

In order to understand the longitudinal development of the reflections developed by the teachers attending the three Focus Group meetings, the occurrence of common key words has been calculated for each meeting. The following figures show these occurrences for each common key words and verbal forms.



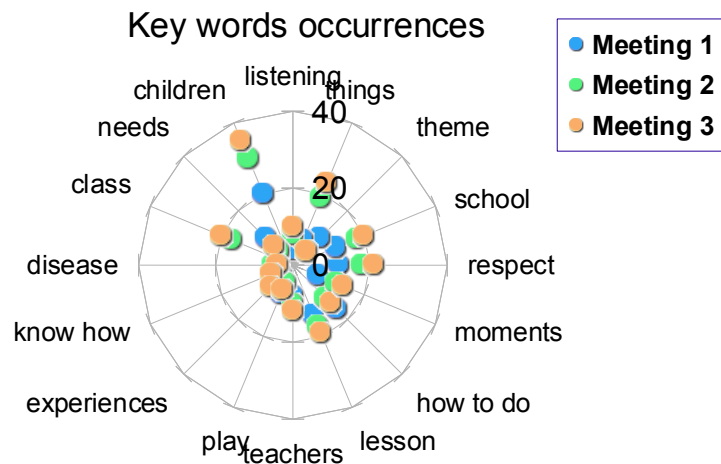


Fig.14 Key words occurrences (three meetings)

The figure shows that, from the first to the third meeting, the occurrence of the following key words increases during the Focus Group discussion: children (from 20 to 35), listening (from 4 to 10), respect (from 12 to 21), experiences (from 4 to 8). The word that obtain higher occurrence value is the word “children” .

The following fig (Fig. 15) separately present the occurrence of each key words.

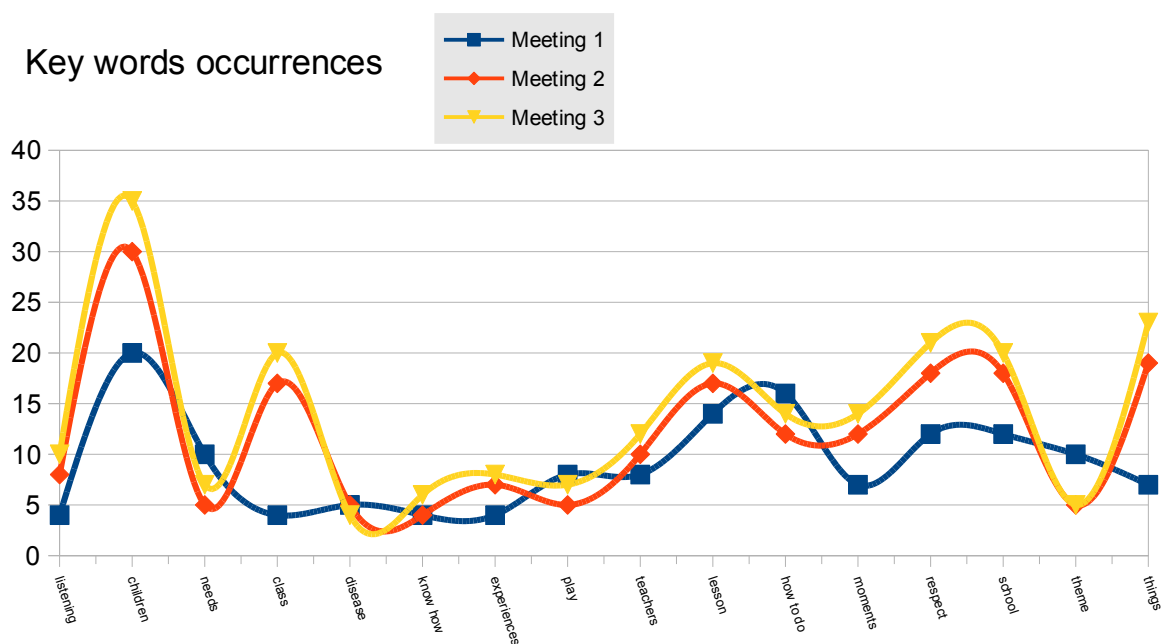


Fig.15 Occurrences values for each key word (three meetings)

The following figures show the results of the automated analysis (word co-occurrences analysis and correspondence analysis) carried out by the software T-Lab (version 3.2.2.7, 2017) on the basis of key word extraction.

The Figures 17 and 18 allow to point out the word associations (from the transcription of the first meeting) concerning the word “creativity” (the main theme of discussion during the first meeting) .



Fig.17 Word Associations concerning the word “creativity” (first meeting)

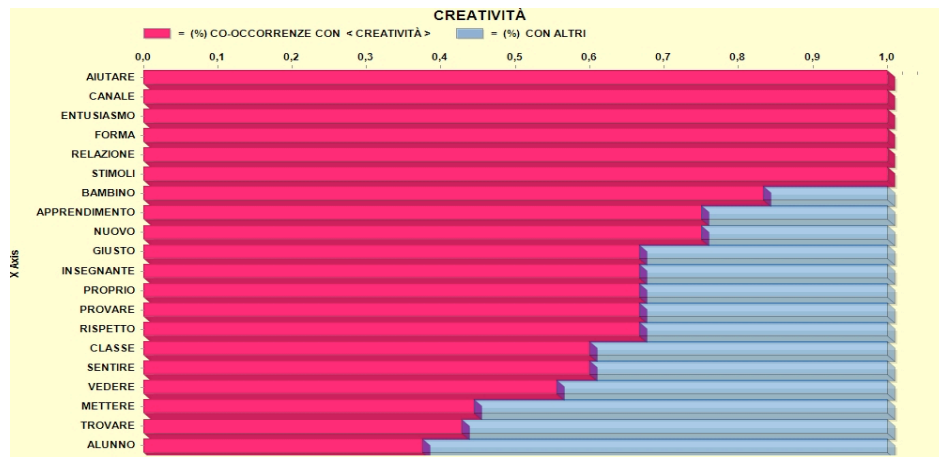
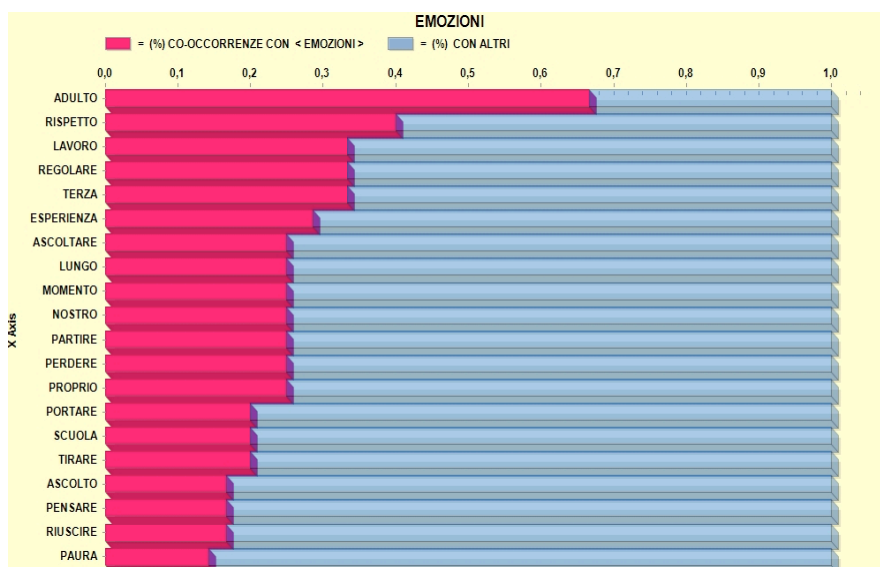


Fig.18 Co-occurrences concerning the word “creativity” (first meeting)

The Figures 19 and 20 allow to point out the word associations (from the transcription of the second meeting) concerning the words “emotion” (the main theme of discussion during the first meeting) .



Fig.19 Word Associations concerning the word “emotion” (second meeting)

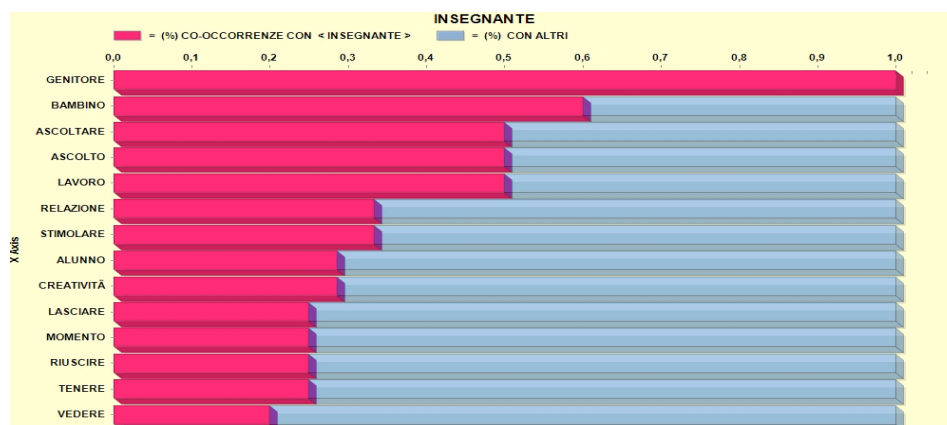


**Fig.20 Co-occurrences concerning the word “emotion” (second meeting)**

The Figures 21 and 22 allow to point out the word associations (from the transcription of the third meeting) concerning the words “teacher” (the main theme of discussion during the first meeting was the teacher professional role and the teacher competences) .

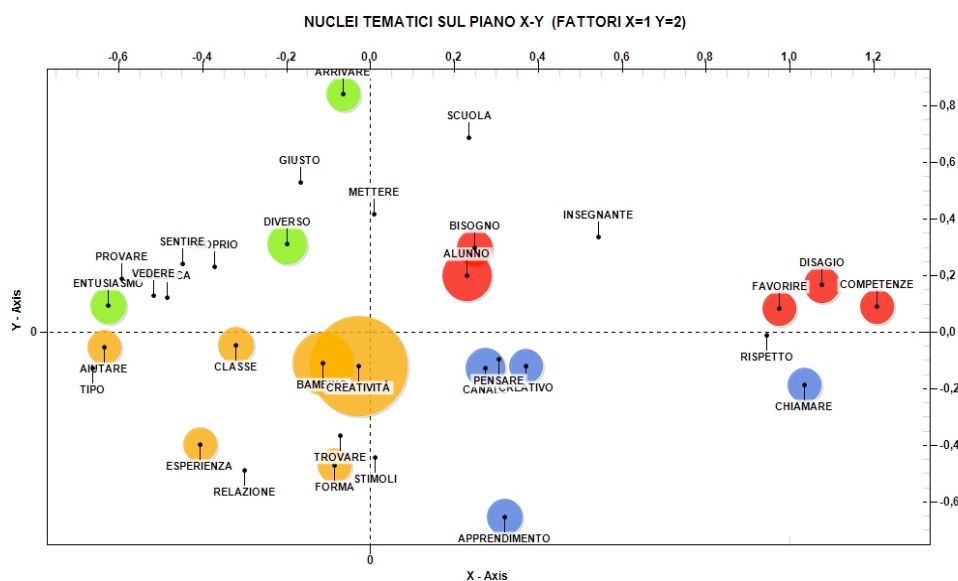


**Fig.21 Word Associations concerning the word “teacher” (third meeting)**



**Fig.22 Co-occurrences concerning the word “teacher” (third meeting)**

The figures above illustrated point out that the co-occurrence pertains words with a relational and affective meaning both for the word creativity (co-occurrences like creativity-“help, support, creativity-“respect”, creativity-“enthusiasm, excitement”, creativity-“relation”) and the word teachers (co-occurrence as teachers-listening, teachers-relation, teachers-creativity). As anticipated in the Fig.16, the co-occurrence teachers/re-thinking, highlight the integration of this dimension in the professional teacher role. The following figures (fig. 23, 24 and 25) show the correspondance analysis of the three segment of the text concerning the focus group transcription.



**Fig.23 Correspondence analysis (first segment of the three meeting transcription)**

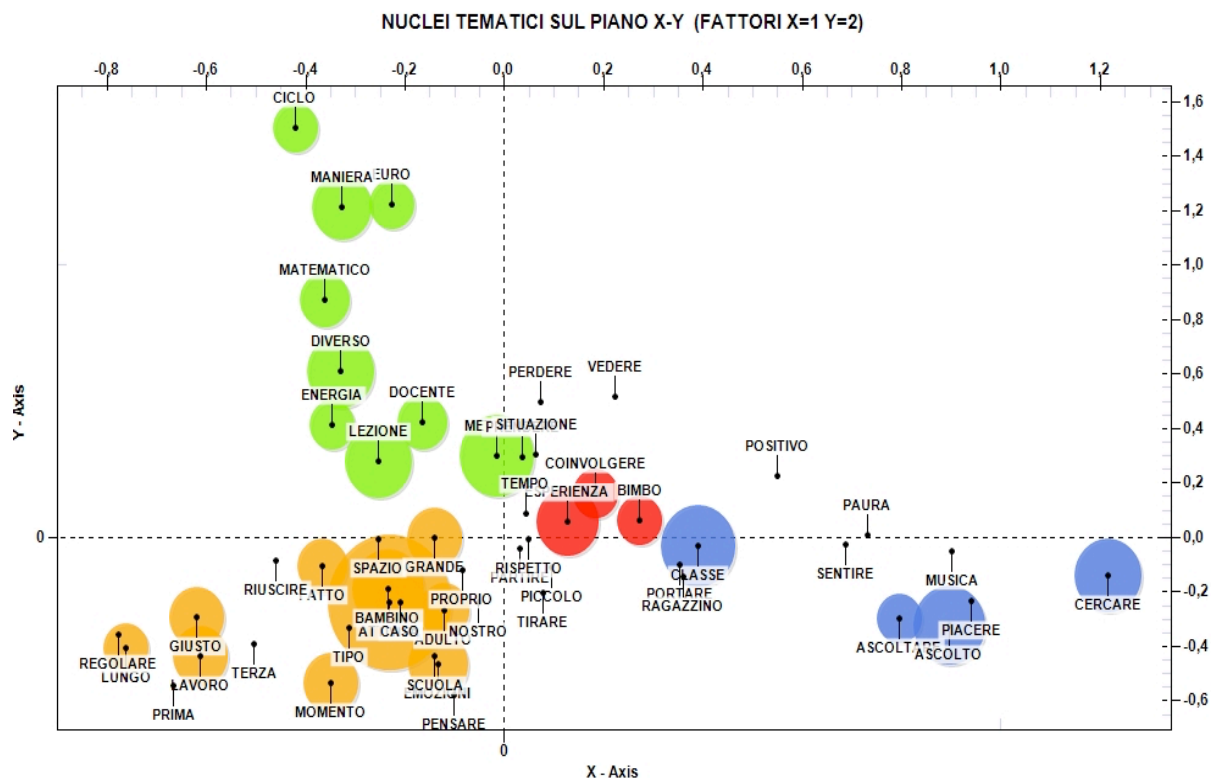


Fig.24 Correspondence analysis (second segment of the three meeting transcription)

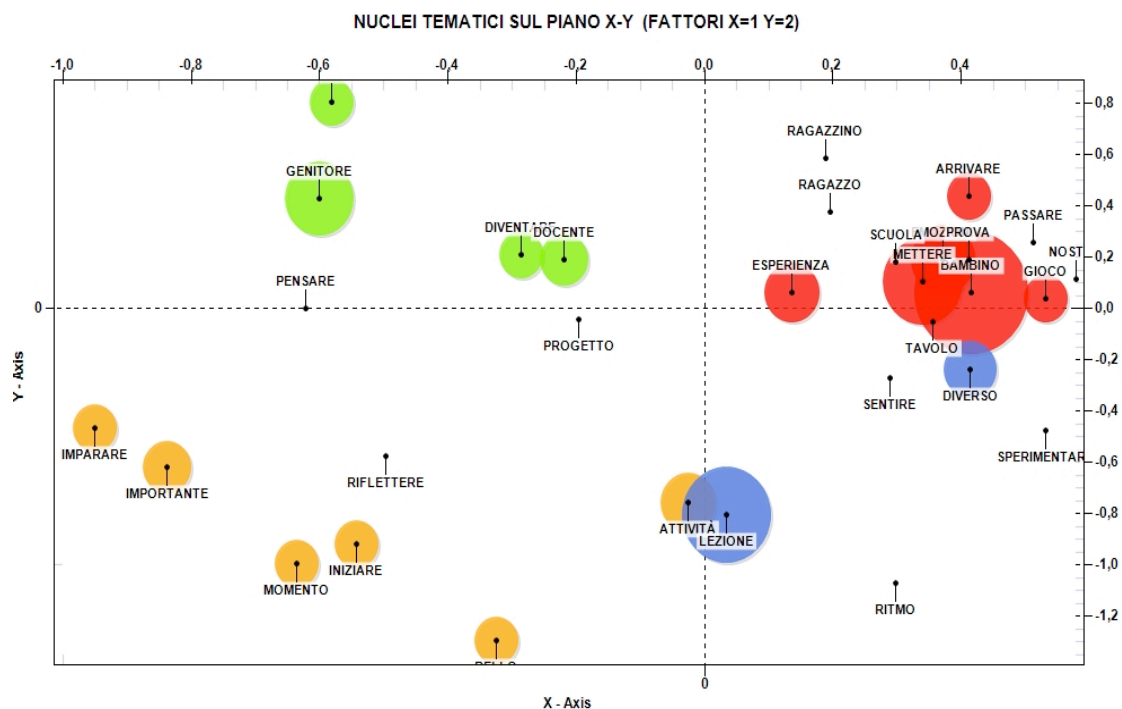


Fig.25 Correspondence analysis (second segment of the three meeting transcription)

These correspondences analysis allow to highlight, for each meeting transcription segment, the similarities and the relations between each group of context and thematic units. This analysis is coherent with the result of the co-occurrence analysis that underlines the relational and affective aspects of the words creativity, emotion and teacher.

The transcription of the three meeting has been also analysed by means of the *cut and paste technique* (Cataldi, 2009) that author called *axial coding* (Krueger, 1994) that foresees the following procedure: 1) the transcription of the audio recordings, 2) the selection and coding of themes more pertinent ; 3) listing the contents' fragments grouped into specific themes; 4) cut each contents fragment or block of conversation implementing a new text created by the research with a internal coherence of meanings. This new report text must have several characteristics: 1) replicability (the researchers analysis is systematic and controlled); 2) focused (the report is coherent and consistent with the specific themes of the Focus Group); 3) the interpretation of the meaning is appropriate according to the research aim.

This analysis described above allowed to critically review the transcription of the three Focus Group. The themes emerged show that the teachers carried out the Link class based activities in order to make vulnerable young people protagonists, enhancing the individual attitudes and expressions of each student. Faced with a traditional sectorial school curriculum, these activities promoted and facilitated the transition to a participatory and motivational learning environment. The teachers' reflection shows that the positive implications to adopt practices integrated by contributions from music and art-therapy can be found at two levels: 1) the level concerning the classroom climate taking into consideration the relational goals; 2) the level concerning the learning processes enhancing stimulating learning environments. The teachers think that the new competences developed are significant in the following areas of the learning experiences and learning environment: emotion and communication processes, self-expression and attention/exploration of the sensory level of learning experience. Moreover, the most important competence is to work in a multi professional group, to

reflect within specific contexts and within specific educational practices. In a perspective of lifelong learning, the arts-based and music-centred practices, together with the possibility to favour emotional and regulatory strategies, represent the most important aspects that they would like to deepen.

## 4. Conclusion

The study carried out during the second year of the Link Project, has allowed to collect both quantitative and qualitative data concerning the impact of the Link activities (teacher training and class based activities) on teachers together with their primary and secondary school students.

Data gathered suggest that the self-report questionnaires (ERQ and S-FSS) seemed an appropriate assessment method during the developmental periods. The importance of the use of measures that guarantee an ecological validity is necessary to capture phenomena as they occur in the natural contexts of adolescents' daily lives at school.

These data show interesting differences – between students involved in the Link activities and students not involved in these activities– concerning both the emotion regulation strategies and the Flow state.

In particular, concerning the emotion regulation strategies, the results show an impact on pupils and students involved in the Link class based activities: the results reveal interesting differences between the scores of the PRE phase, at the beginning of the teacher training, and the scores of the POST phase, at the end of the teacher training. These differences, that concern a reduction of the scores of the expressive suppression sub scale and an interesting effect on the scores of the cognitive reappraisal subscale, are more relevant for primary school children and secondary school students involved in the Link activities than other primary and secondary school classes not involved in the Link activities. These results reveal an interesting impact of the Link activities on emotion regulation strategies suggesting that these activities enhance and support a development of strategies associated with positive outcomes (as



the cognitive reappraisal strategy). Moreover, a difference between boys and girls was found –in the secondary school students– concerning emotion regulation strategies; this data is coherent with previous studies (Balzarotti et al., 2010; Gross & John, 2003) showing that boys more frequently use this strategy than girls according social and cultural context.

Taking together, the results, that show differences between pre and post phase, suggest that the LINK project has enhanced actions to help vulnerable young people using music to engage complex emotions. Studies shows that young people are most likely to be using music more frequently when they are distressed (Brown & Bobkowski, 2011). Moreover, this preliminary data are coherent with the idea that the childhood and the adolescent hood involve several change: cognitive, social, and emotional. In particular, adolescents experience more frequent and intense emotions than younger or older individuals and the middle childhood years constitute can represent an occasion to learn functional emotion regulation strategies.

Concerning the Flow, the results of this impact study that show significant Flow scores differences between the Link target group 1 and the students not involved in the Link activities, are coherent with previous research findings: outcomes of flow experience vary according to the activity characteristics and, interestingly, to the long-term process of meaning-making (Delle Fave, 2009; Freire, Tavares, Silva, & Teixeira, 2016).The increase in the Flow scores for both children of the primary school and pre-adolescents of the secondary school are, in fact, more evident in the target group involved in the Link activities than in the primary and secondary school classes not involved in the Link activities.

The case studies presented above allow to collect qualitative and quantitative data concerning the development of the Flow experienced by two vulnerable children during four sessions of the Link class based activities. In particular, these data allow to implement a tool that school teachers can use in order to analyse the relation between specific Link activities carried out by the class teacher himself or herself and behavioural indexes related to the Relational and Sensorial Flow. From the quantitative point of view, the results point out

that, for both children and during the four sessions, the level of intensity – scored at the end of activity – concerning the State, Sensory and Relation Flow is higher than the level of intensity scored at the end of activity. Concerning this data, a previous study (Bloom and Skutnick–Henley, 2005) helps to understand the relation between music and learning processes, proposing some predictors of flow that can be related to the behavioural indexes observed with the simply Flow observation schedule. These predictors are the following: (1) self– confidence and self–trust while playing, (2) desire to experience and express feelings through music, (3) possession of experience goals, (4) ability to maintain focus on the music, and (5) ability to play without self–criticism. In particular, the first two predictors were proved to be the most evident. Furthermore, as Bloom and Skutnick–Henley stated (2005, p.24), “If intrinsic enjoyment of playing music is indeed an important predictor of prolonged music study, then we believe it is important to find ways of making the flow experience more attainable for music students” (p. 24). These reflections, although specifically related to the learning process of music students, can represent an interesting common perspective to understand how the Link music activities, carried out by teachers with a specific attention and emphasis to the relational implication of music experiences – according to the teacher training theoretical framework–, can support and motivate vulnerable young people contrasting early school leaving.

**Concerning the S–FSS filled in by the teachers** administered in relation to the experience in expressive activity completed during both the first teacher training meeting (on November 2016) and the last teacher training meeting (on May 2017), the descriptive data (the small number of teachers attending the teacher training doesn't allow to adopt an inferential test) shows Flow State high mean scores in relation to both the body and movement exploration together with music listening (experience carried out during the first teacher training meeting) and music listening (experience carried out during the last teacher training meeting). The three Flow dimensions (challenge–skill balance, loss of self–consciousness and transformation of time) that showed highest mean scores for both experiences above

mentioned, highlight the specificity of experience of Flow State in relation to expressive activities proposed by trainers during the teachers training meetings. These qualitative data allow to support the rationale to introduce this kind of activities in order to enhance Flow experience together with larger institutional objectives. Existing studies (Hoy and Sweetland; 2000, 2001; Hoy et al. 2006; Hoy and Beard, 2010) pointed out the relation between the teachers Flow experience, school mindfulness and enabling school structure. Moreover, concerning the impact on teachers through the data collected during the Focus Group meeting show that the teachers carried out the Link class based activities in order to make vulnerable young people protagonists, enhancing the individual attitudes and expressions of each student. Faced with a traditional sectorial school curriculum, these activities promoted and facilitated the transition to a participatory and motivational learning environment. The teachers' reflection shows that the positive implications to adopt practices integrated by contributions from music and art-therapy can be found at two levels: 1) the level concerning the classroom climate taking into consideration the relational goals; 2) the level concerning the learning processes enhancing stimulating learning environments. Finally the reflections developed during the meetings by the teachers, help to outline the importance of the possibility to deepen the teaching work with vulnerable young people in a multi professional group, to reflect within specific contexts and within specific educational practices.

#### **4.1 Implication for the training of teacher that daily support learning processes of vulnerable young people at school**

The results of the impact study help to test the effectiveness of the Link teachers training implemented and the effectiveness of the tools and techniques acquired in a specific context such as the school, in order to enable the teachers to use musical, music and art-therapy practices, to facilitate learning processes, well-being and creativity.

Taking into account this general perspective, the multi disciplinary collaboration implemented during the Link Project highlights the specific contribution that teachers, trainers and researchers can offer to deepen the

framework of multi professional competences needed to contrast early school leaving and support vulnerable young people in educational contexts. Music therapy can be defined as the use of sounds and music within an evolving relationship between client/patient and therapist, in order to support and develop physical, mental, social, emotional and spiritual well-being (Bunt & Hoskyns, 2002). Music therapist use observation to found problems in communication; in particular, he/she can observe their musical correspondences (Bunt, 2012) and he/she is able to facilitate the processes of 'musical repair' (Ansdell & Pavlicevic, 2005). Marik & Stegemann (2016), highlights that is it important for music therapists to understand the concepts of emotion regulation and dysregulation in the treatment of patients. This issues are also central for the teacher; often pupils and students have emotional problems or their are unable to express his/her feelings. Regulating one's emotions in socially and contextually adaptive ways have been shown to be an important resource for interpersonal and intra personal healthy psychological functioning (Gullone, Hughes, King, & Tonge, 2010; Southam-Gerow & Kendall, 2002). Furthermore, Marik & Stegemann (2016, p. 64) analytically describe the relation between music and affect regulation, emphasizing a music therapist competence that could represent a starting point for a useful multi professional collaboration between music therapist trainers and teachers: *"music can be both helpful and harmful to emotion regulation. It can be an effective or an ineffective tactic, depending on the situational context and the individual. For example, music can be overused, similar to taking drugs to escape one's problems, or it can be used to encapsulate oneself. Music can induce very unpleasant emotions or can overwhelm people when it is linked to a traumatic situation. [...] music's effectiveness as an emotion regulation tool depends on the context and the individual; thus, listening to one specific piece of music can never be a remedy for all people to reach a specific goal. Therefore, the individual-oriented/person-centred approach of improvisational music therapy elucidates the potential for musical interventions tailored to emotion regulation"*.

Concerning the Flow, data from a research carried out among high school instrumental music students (Montanez, 2011), has shown that Flow experiences tied to the many positive aspects and rewards of playing music, including but not limited to intrinsic motivation, confidence in performance, self-growth and development, artistic creativity, the learned ability to take risks, and a corresponding decrease in student disengagement or frustration. This Author highlights that with this new information, educators can gain a deeper understanding of how Flow is best promoted increasing successful outcomes for the greatest amount of students in a day-to-day educational setting. In fact, research on Flow show that cognitive, emotional, motivational and social variables, along with contextual factors have proven to be important for the occurrence of Flow experience (Schmidt, Shernoff, & Csikszentmihalyi, 2007).

A recent review (Tavares & Freire 2016) on relation between flow and emotion regulation processes in adolescents, discuss the relation and the interaction between the constructs of flow experience, attentional control, and emotion regulation in order to deepen the understanding on how they contribute to positive and optimal development in adolescence. This review discuss research findings about the relation between frequency of Flow experiences and broader positive development perspective pointing out that several study highlights the existence of this positive correlation within several domain concerning positive affect and social functioning (Csikszentmihalyi & Hunter, 2003; Rogatko, 2009), psychological well-being and self-esteem (Bassi et al., 2014; Nakamura & Csikszentmihalyi, 2002) and, finally, high level of engagement in learning and achievement (Mesurado, 2010; Steele & Fullagar, 2009).

Concerning vulnerable young people, this recent review (Tavarez & Freire, 2016) develop reflections about the usefulness of data gathered by normative population arguing that the flow experience in “normative” adolescence and related processes, can inform positive clinical interventions, especially those that target disorders marked by apathy, boredom, and absence of enjoyment.

These reflections are coherent with the multi disciplinary professional actions implemented during the Link project confirming the opportunity to adopt a flexible multi professional collaboration between trainers and teachers that allow to support vulnerable young people changing and managing the activities structure and the environment to create the conditions for flow occurrence or, if necessary, to work directly with the adolescent to help him/her to have a proactive role at school and in daily life.

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# **ANNEXES**

## ANNEX 1: THE SHORT FLOW STATE SCALE (S-FSS). INSTRUCTION AND ITALIAN ITEMS

Questionario n 1

UNIBO Team, Questionario Progetto  
LINK

DATA, .....

Età ..... M F

Suoni uno strumento? SI (da ..... anni) NO

Canti in un coro? SI NO

*Ti chiediamo di rispondere alle seguenti domande in relazione a quella che è stata la tua esperienza nell'evento o nell'attività che hai appena terminato. Queste domande si riferiscono ai pensieri e ai sentimenti di cui puoi avere fatto esperienza mentre svolgevi l'attività. Non vi sono risposte giuste o sbagliate. Pensa a ciò che hai provato durante l'attività e rispondi utilizzando la scala indicata qui di seguito. Per ogni affermazione, contrassegna il numero che corrisponde maggiormente a quella che è stata la tua esperienza.*

Durante l'evento/attività

		Fortemente in disaccordo	In disaccordo	Ugualmente d'accordo e in disaccordo	D'accordo	Fortemente d'accordo
1	Sentivo di essere sufficientemente competente rispetto alle difficoltà richieste dalla situazione	1	2	3	4	5
2	Agivo in maniera spontanea e automatica senza doverci pensare	1	2	3	4	5
3	Avevo un'idea molto chiara di ciò che volevo realizzare	1	2	3	4	5
4	Avevo un'idea corretta di quanto stessi lavorando bene	1	2	3	4	5
5	La mia concentrazione era interamente rivolta al lavoro	1	2	3	4	5
6	Sentivo di avere il pieno controllo delle mie azioni	1	2	3	4	5
7	Non mi importava di quello che gli altri pensavano di me	1	2	3	4	5
8	Il tempo sembrava passare in modo diverso dal solito	1	2	3	4	5
9	Ho trovato quell'esperienza estremamente appagante	1	2	3	4	5



ANNEX 3: ANSWER SHEET SIMPLY FORM FOR CHILDREN

WITH SPECIAL EDUCATIONAL NEED

PRIMARY SCHOOL

Ho ..... anni  
Sono una femmina

Sono un maschio

Suono uno strumento    SI    NO  
SI    NO




Canto in un coro

1)Colora lo spazio seguente per indicare quanto ti è piaciuta  
l'attività.

Colora POCO se ti è piaciuta poco.  
Colorala DI PIU' se l'attività ti è piaciuta.  
Colora TUTTO lo spazio se l'attività ti è piaciuta molto.



2) Come ti sei sentito appena terminata l'attività?

● CONTENTO	
● NE' CONTENTO NE' SCONTENTO	
● SCONTENTO	



### 3) Per quanto tempo hai lavorato?

<input type="radio"/> POCO TEMPO	
<input type="radio"/> NE' POCO NE' TANTO	
<input type="radio"/> TANTO TEMPO	

## ANNEX 4: THE EMOTION REGULATION QUESTIONNAIRE (ERQ). INSTRUCTION AND ITALIAN ITEMS

DATA, .....

Età ..... M F

Suoni uno strumento? SI (da ..... anni) NO

Canti in un coro? SI NO

### Istruzioni:

Qui di seguito, ti chiediamo di rispondere ad alcune domande sulla tua esperienza emotiva, in particolare riguardo al modo in cui controlli (cioè regoli e gestisci) le tue emozioni. Le domande comprendono due diversi aspetti circa le tue emozioni. Il primo aspetto riguarda la tua *esperienza*, ovvero quello che provi, senti dentro. Il secondo riguarda invece l'*espressione*, cioè il modo in cui mostri le tue emozioni nel modo di parlare, esprimerti, comportarti.

Nonostante alcune domande ti sembreranno simili, in realtà esse differiscono per alcuni aspetti importanti. Ti chiediamo quindi di leggere con attenzione e di rispondere utilizzando questa scala di valori:

1-----2-----3-----4-----5-----6-----7 per niente d'accordo  
neutrale totalmente d'accordo

1. \_\_\_\_\_ Per sentirmi meglio (ad esempio, felice/contento/sollevato/di buon umore), cerco di guardare le cose da una prospettiva diversa.
2. \_\_\_\_\_ Tengo i miei sentimenti per me.
3. \_\_\_\_\_ Per non starci male (ad esempio, essere triste/in collera/di cattivo umore), cerco di guardare le cose da una prospettiva diversa.
4. \_\_\_\_\_ Quando sono contento/felice, cerco di non farlo notare.
5. \_\_\_\_\_ Quando devo affrontare una situazione difficile, cerco di considerarla da una prospettiva che mi aiuti a stare calmo/a.
6. \_\_\_\_\_ Controllo le mie emozioni non esprimendole.
7. \_\_\_\_\_ Cambiare il modo di pensare ad una situazione, mi aiuta a sentirmi meglio.
8. \_\_\_\_\_ Cerco di controllare i miei sentimenti provando a cambiare il modo di considerare la situazione in cui mi trovo.
9. \_\_\_\_\_ Se provo sentimenti negativi, faccio attenzione a non esprimerli.
10. \_\_\_\_\_ Cambiare il modo di pensare ad una situazione, mi aiuta a non starci male.

## ANNEX 5: ANSWER SHEET SIMPLY FORM FOR CHILDREN WITH SPECIAL EDUCATIONAL NEED PRIMARY SCHOOL

Data ..... Classe .....

*Progetto LINK -UNIBO Team*

Ho ..... anni

Sono un maschio

Sono una femmina

Suono uno strumento    SI    NO

Canto in un coro        SI    NO

-----  
-----

1)Colora lo spazio seguente per indicare quanto ti è piaciuta la storia.




Colora POCO se ti è piaciuta poco.

Colorala DI PIU' se la storia ti è piaciuta.

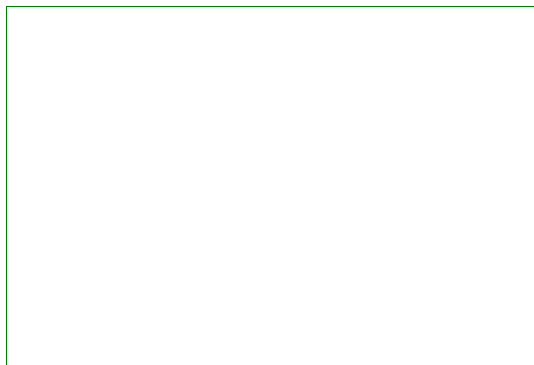
Colora TUTTO lo spazio se la storia ti è piaciuta molto.



2) Come era Francesco all'inizio della storia?

<input type="radio"/> FELICE	
<input type="radio"/> NE' FELICE NE' INFELICE	
<input type="radio"/> INFELICE	

3) Guarda il tuo volto nello specchio del libro e disegna come ti senti tu oggi.



## ANNEX 6: QUESTIONNAIRES ADMINISTRATION PROCEDURE (S-FSS AND ERQ)

### Group Target 1: Children of the primary school: questionnaire administration, instructions and steps

#### 1) INTRODUCTION

- The researcher remembers that she asking for their help for the Link project and thanking in advance the children and the teacher for the collaboration;
- The researcher explains that answers to questionnaires will not be evaluated since the task did not represents a school/academic test but, to the contrary, it is important that children respond in a sincere, authentic, spontaneous and personal way;
- The researcher explains that the questionnaires are anonymous.

#### 2) EXAMPLES

The researcher presents the Likert scale at the IWB-LIM (interactive white board) and explains how to fill in the questionnaire by indicating the *level of agreement with a given* statement or item. She reads aloud one item example not included in the questionnaires (e.g. "*This morning I finished my breakfast eating slowly*"); then, she explains how to individually choose their answer by colouring a square (representing the Likert scale from 1 to 5, in the answer sheet form).

#### 3) QUESTIONNAIRE:

- The researcher asks the children to indicate their age, genre and whether they play or not an instrument or sing in a choir.
- The researcher reads the instructions of the item from the S-FSS and invites the students to fill in the questionnaire in relation to the experience in event or activity just completed in the classroom. The researcher explains that they can ask any information or clarifications they need.

For children with special educational needs, the researcher illustrate the

short/simple form of the answer sheet that children filled in together with their teacher.

After the administration of the item of the S-FSS, the researcher present the second questionnaire about emotion regulation strategies repeating the information above mentioned about the step 1(introduction) and 2 (examples) of the administration procedure.

In order to share with the children the theme and the concept of emotion, the researcher tells a short and very simple story about F., a children who meets a bear playing with his dog in the wood.

The story is a picture book "Funny face" of Nicola Smee. The storyboard presents four emotions (joy, surprise, anger, fear, sadness) and one affective state (worry) with a correspondent facial expression.



Fig. 3. Happy face and surprised face from the picture book "Funny face" by Nicola Smee

At the end of the reading, the researcher continues the story and uses the procedure of inviting children to think the following scenario: "When F. come back home, doesn't find his favourite animal, a white little bunny". Then the researcher asks: "What could F. do or think to feel less sad if he doesn't find his favourite white little bunny?" Children respond by writing the answer on a response sheet

Then the researcher introduces and reads aloud six ERQ items and asks children to choose their answer by colouring a square (representing the Likert scale from 1 to 5) in the answer sheet form. For children with special educational needs, the researcher illustrates the short/simple form of the answer sheet that children filled in together with their teacher.

### Questionnaire Administration with the young people of the secondary school: instructions and steps

#### INTRODUCTION

- The researcher remembers that she is asking for their help for the Link project and thanking in advance the students and the teacher for their collaboration;
- The researcher explains that answers to questionnaires will not be evaluated since it is not a school/academic test but, to the contrary, it is important that children respond in a sincere, authentic, spontaneous and personal way;
- The researcher explains that the questionnaires are anonymous.

#### EXAMPLES

- The researcher presents the Likert scale at the IWB-LIM (interactive white board) and explains how to fill in the questionnaire by indicating the *level of agreement with a given* statement or item. She reads aloud one item example not included in the questionnaires ("This morning I finished *my breakfast eating slowly*"); then, she explains how to individually choose and indicate the answer with the Likert scale.

#### QUESTIONNAIRE:

- The researcher asks the students to indicate their age, genre and whether they play or not an instrument or sing in a choir. The researcher reads the instructions of the item from the S-FSS and invites the students to fill in the questionnaire in relation to the experience in event

or activity just completed in the classroom. The researcher explains that they can ask any information or clarifications they need.

After the administration of the item of the S-FSS, the researcher present the ERQ questionnaire repeating the information above mentioned about the step 1(introduction) and 2 (examples) of the administration procedure. Students individually fill inn the questionnaire by choosing and writing a number from 1 to 7 of the Likert scale for each item of the questionnaire.

Group Target 2: Teachers: teachers of the primary and secondary school filled in the S-FSS on the occasion of the first meeting (PRE\_TEST) and the last meeting (POST\_TEST) of the Teacher Training.

## **ANNEX 7:**

### **THE FLOW GRID FOR THE LINK PROJECT BY ADDESSI**



**LINK - Learning In a New Key**  
**EU Project, Erasmus + (2015-2017)**

**Impact Study 2**  
**UNIBO**

**THE FLOW GRID  
FOR  
THE LINK PROJECT**

**GUIDE FOR THE OBSERVER  
&  
SCORING SHEET**

By Anna Rita Addessi  
University of Bologna

## Identification data:

Country:

- A. Italy
- B. Poland
- X. Portugal
- Δ. UK

Case-study number: .....

Total numbers of videos analysed: .....

Name of the observer: .....

Date(s): .....

# The Flow Grid for the LINK Project

In the framework of the LINK Project, case-studies of Class Based Activities can be carried out by means of the *Flow Grid* as from Addressi, Ferrari, & Carugati (2015) and Addressi, Ferrari, Carlotti, Pachet (2006), with the aim of identifying the state of well-being of the participants by measuring the intensity of 5 *variables* of the Flow: focused attention, clear-cut feedback, clear goals, pleasure, and control. Some adaptations and a new scoring sheet are introduced for the videanalysis that will be carried out in the framework of the LINK project.

## The Theory of Flow

According to the theory of Csikszentmihalyi (1990, 1996, 1997, et al. 1988) the state of flow can be defined as the psychological state of maximum optimism and satisfaction that a person perceives during the course of an activity and it is closely related to the concept creativity. The state of flow is defined as "optimal experience" that results from the balance, perceived by the subject, between the challenge that you want to achieve and the personal skills to achieve or copy this goal. The flow is characterized by the presence of high levels of a series of "variables", which are: focused attention, clear-cut feedback, clear goals, pleasure, control of situation, awareness merged, no worry of failure, self-consciousness disappeared, the change of the perception of time. According to Csikszentmihalyi theory, in addition to the state of flow, other emotive states can be observed, defined as follows: arousal, control, boredom, relaxation, apathy. Also these emotive states are the result of different combinations of levels of the variables.

## The Flow Grid

This Flow Grid implemented in A,F,C,&P (2006) and A,F,&C (2015), allows to both observe and measure the Flow state. The basic idea of this grid is that the observer does not register the flow state, but rather register the *variables* and their intensity (from 1 to 3 levels of intensity). In accordance with Csikszentmihalyi (1996), when all variables showed the higher levels of intensity (3) the state of flow is present. Other combinations of the intensity levels of behaviours determined the state of arousal, control, anxiety, relaxation, worry, boredom and apathy. In the first study (A,F,C,&P, 200&), 9 variables were measured for the whole observation session. In the second study (A,F,&C, 2015), the following 5 variables were registered second-by-second by means of the Observer software:

1. focused attention
2. clear-cut feedback
3. clear goals
4. control of situation

5. pleasure.

The grid allows to record the presence/absence, the duration and the level of intensity (1 = low, 2 = medium, 3 = high) of each *variable*.

The following elements of the grid are adapted for the Link Project:

- the description of the 5 variables is the same presented in Addessi, Ferrari, & Carugati (2015) but the operational definitions will be adapted/added/modified taking into accounts different classrooms contexts and specific CBA carried out in the framework of the LINK project;
- the observers will record the variables on the full session (as in the study of 2006) and also by selecting a specific time interval (5 minutes).
- A new scoring sheet has been create for the LINK observers.

## References:

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## General data

Before to start your observation, please fill in the following form.

Thank you for your collaboration.

Age: 21-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ 61-70 ☐ 71-80 ☐

Nationality:.....

Education:.....

.....

Profession:.....

.....

Expertise:.....

.....

Your role in the LINK project (teacher, trainer,  
researcher):.....

Do you play/study/studied an instrument? .....

If so, what  
instrument(s)?.....

.....

## DEFINITION OF THE 5 VARIABLES

In this section we introduce the descriptions of the 5 VARIABLES, some "operational" examples and the three levels of intensity for each of them. The operational examples concern a person playing a keyboard. However, the examples can be adapted for a different instrument, or performance (for example for dance or theatre). The observer can add further operational examples, if the case. In order to describe in operational way the flow state in musical context of young children, we also used the "indicators" of Custodero (2005). The levels of each variable depend on the intensity and persistence of the behaviours, which characterise each variable, over time.

In order to record the observations, it is important that the observer takes into account that the state of Flow is a condition that occurs and evolves within wide time intervals, even over a minute.

### Focused attention

The "focused attention" is an analytic behaviour of great intensity, is present when the person focuses on one or more particular elements. The focused attention is characterized by selective attention. The person is not distracted by the environment, the teachers, the school noises, etc., or other objects and people. Often this behaviour is accompanied by the direction and fixed gaze of the person on an object or a gesture.

Some operational examples that characterize the Focused attention:

The person: looks carefully the musical instrument and/or other object used during the activities; observes, s/he is careful and systematically explores some parts of the instrument or other objects: for example, plays only the black keys, or all the keys from the lowest to the highest, etc.; systematically explores some gestures to producing sounds, carefully gazing the hand, fingers, etc., repeats the same gesture, changes it, etc..; is focused on particular (musical) idea, thereby perpetuating activity with concentration: for example, he/she plays a particular rhythm pattern, listens carefully to the teacher's response, then continuing to repeat and/or elaborate the pattern; listens attentively to own productions and the production of the partner(s). When focused attention is directed on listening, the person may show fixed gaze on a point, like a person listening to music with headphones; observes carefully the gestures of the teacher/partner.

If the case, you can add further operational examples for better describing the Focused Attention in your specific observational scenario:

.....  
.....  
.....

.....  
.....  
.....

### LEVELS of INTENSITY

**Level 1 = LOW:** The person shows one or more examples of behaviour that characterize the focused attention but in a not intense and in a piecemeal way, without continuing of that behaviour.

**Level 2 = MEDIUM:** The person shows one or more examples of behaviour that characterize the focused attention with a medium intensity and frequency.

**Level 3 = HIGH:** The person shows one or more examples of behaviour that characterize the focused attention in a very clear, intense and persistent way over time. In some cases the behaviour may be very short but it may have a high intensity and directionality of the gesture and gaze.

### **Clear-cut feedback**

The "clear-cut feedback" is defined by Csikszentmihalyi as "internalizing the field's criteria of judgement to the extent that individuals can give feedback to themselves, without having to wait to hear from experts" (1996, p. 114). In our observations we determine how the person analyses/feels/reacts to the feedbacks received from the instrument, or/and from the other musicians/actors that are playing with her/him.

Some operational examples that characterize the Clear-cut feedback:

The person: listens carefully and reacts to the instrument by "self-correction" (Custodero, 2005), smiling, showing expressions of puzzlement, joy, surprise, saying something; learns to respect the turn-taking with the partner; changes its musical proposal/response according to the response received from the partner, for example, plays something that sounds similar but is a little different from the response of the partner; in some cases, we can observe the clear-cut feedback even when the person continues to repeat the same pattern, even if the partner responds differently, as if the person wants to teach something to the partner; It may be useful to observe facial expressions or hear what the person says and commenting.

If the case, you can add further operational examples for better describing the Clear-cut feedback in your specific observational scenario:

.....  
.....  
.....  
.....  
.....

### LEVELS of INTENSITY

**Level 1 = LOW:** the child becomes aware of the system response and reacts. The child learns to respect the turn-taking (see example described in a);

**Level 2 = MEDIUM:** the child shows one or more examples of behaviours that characterizing the clear-cut feedback with medium intensity and/or in a fragmented way over time;

**Level 3 = HIGH:** the child shows one or more examples of behaviours that characterizing the clear-cut feedback with high intensity and in a continuous and persistent way over time.

### **Clear goals**

The "clear goals" are present in situations where "the creative process begins with the goal of solving a problem that is given to a person by someone else or is suggested by the state of the art in the domain (...). In flow we know always what it has to be done" (Csikszsenmihalyi, 1996, p.113). The goals are clear when the person's behaviours are intentional and not accidental. When the aims are clear, the person shows the intention to find and to try spontaneously strategies, ways to explore and play. These behaviours are acted out in a systematic way (repeating the gesture or sequence of gestures) and precise way (trial and error).

Some operational examples that characterize the "clear goals":

The person shows to have the aim of exploring the parts of the instrument. For example: sh/e gazes and plays firstly all the white keys and then the blacks, or all keys from first to last, or more keys together or press the buttons on the keyboard, etc.; shows to have the aim of exploring the different gestures to produce sounds: beats the keys with one finger, with an open hand, with elbow, arm, head, producing glissando, etc.; shows to have the aim of exploring the "sounds" of the keyboard and/or developing a musical idea: for example, sh/e plays systematically all white keys listening carefully, or all keys on the low register; shows to have the goal of teaching to the partner(s) a particular musical patterns, such as a rhythmic pattern, or a "way" of playing, for example, more or less frenetic, agitated, funny, repeats this sequence until he/she hears and understands; has the goal of discovering the rules of interaction and musical dialogue with the partner/s and teacher.

If the case, you can add further operational examples for better describing the Clear goals in your specific observational scenario:

.....

.....

.....

.....

.....

### LEVELS of INTENSITY



**Level 1 = LOW:** the person shows only some of the behaviours that indicate the clear goals in a not intense and fragmented way;

**Level 2 = MEDIUM:** the person shows only some of the behaviours that indicate the clear goals in a medium intensity;

**Level 3 = HIGH:** the person shows one or more examples of behaviours that characterizing the clear goals with high intensity and in a continuous and persistent way over time.

### **Control of situation**

According to Csikszentmihalyi, the "control of situation" is present when "we are too involved to be concerned with failure, it as a feeling of total control" (Csikszentmihalyi 1996, p. 112). That is, the person constantly checks (monitors) own actions during the performance.

Some operational examples that characterize the "control of situation":

The person understands that he/she can start/interrupt the performance when he/she wants; "Self-assignment "(Custodero 2005), the activities (exploration, invention, performance, etc..) are started by the person; "Deliberate gesture" (Custodero 2005), the movements are well controlled, both during the listening and playing; explores and uses spontaneously, independently and with agility the instrument or other objects involved in the activity; in the performance with other persons, s/he knows how to use/manage the rules of the interaction with the other musicians, for example s/he respects the turn-taking, invents new rules of interaction and playing, etc.; he/she plays, stops, listens to the response of the partner(s) and responds by repeating/changing/proposing new musical ideas; collaborates with the partner to invent "games", creating situations of "collaborative playing".

If the case, you can add further operational examples for better describing the Control of situation in your specific observational scenario:

.....  
.....  
.....  
.....  
.....

### **LEVELS of INTENSITY**

**Level 1 = LOW:** the person shows some behaviours of control but in a fragmented way and the behaviours are not very intense. Sometimes the person shows that s/he can not interpret/understand the response of the teacher/partner(s);

**Level 2 = MEDIUM:** the person controls the setting, the instrument, the interaction with the partner(s)/teacher, with a medium intensity and temporal continuity;

**Level 3 = HIGH:** the person controls the setting, the instrument, the interaction with the partner(s)/teacher, and the sound dialogue in an intense, persistent and continuously way over time.

### **Pleasure**

Csikszentmihalyi writes that the "flow is an innately positive experience, it is known to produces intense feelings of enjoyment "(Czsisentmihaly et al. 1988, p. 35). Csikszentmihalyi refers to the pleasure as a result of the state of flow, that the subject perceives when he/she rethinks to his/her own experience of flow. Pleasure can then be defined as a situation of well-being and joy.

Some operational examples that characterize the "pleasure":

The person: smiles and/or laughs, he/she is calm; shows no displeasure; repeats an action that likes to do, for example: exploring a musical idea, doing a particular gesture, playing sounds s/he likes; "produces" exclamations of pleasure; speaks with the teacher/partner(s) and shares with him/her/them the joy through words and gestures; when the pleasure becomes more intense and visible, the states of excitement can be observed by an increase in the intensity of the movements, of the gesture on the instrument, of the volume of voice, etc.

If the case, add further operational examples for better describing the Pleasure in your specific observational scenario:

.....

.....

.....

.....

.....

### LEVELS of INTENSITY

**Level 1 - LOW:** the behaviours characterizing the pleasure are not very intense and they are present in a fragmented way over time;

**Level 2 - MEDIUM:** the person shows behaviours of pleasure in a medium intensity. Moments of excitement does not appear;

**Level 3 - HIGH:** the person shows behaviours of pleasure in a high intensity and in an intense, persistent and continuously way over time. In some cases behaviours of excitement are observable.

# Scoring Sheet (for videoanalysis)

Circle a number from 0 to 3 that indicates the presence/absence of each variable and your rating of the level of intensity for each of the assessed variables. First give your assessment for the Full Session, and then for each consecutive 5 minutes of the session. Use the *Descriptions of the variables* in order to define the assessment criteria for each variable and levels of intensity.

Judgments should be made relative to one another and not according to absolute criteria. You may forward back to the items already assessed and change your assessment. The videos can be watched as often as possible, until each judge is satisfied with her/his assessment. Where appropriate, the videos can be stopped and re-watched if any of the judges want to re-hear/watch any performance. Generally the first 3 to 5 examples of the total performances should be used as consensus items, and to familiarise with the scoring methods for that particular item. The normal procedure then involved alternating between scoring up to three items in a row independently, followed by using another two or three items as consensus items. Where there is a break in scoring, judges again used the consensus approach for the first three items at the commencement of the next session.

First assess Focused attention and Clear-cut feedback (First set of videos), and then Clear goals, Control of situation, and Pleasure (Second set of videos).

**Free Comments:** Since completed the assessment for each video, please write your freely comment about the performance: write everything you found interesting and meaningful. Take note of special fragment that you find more interesting.

## Assessment rating scales:

	Not present	Low intensity	Medium intensity	High intensity
Focused attention	0	1	2	3
Clear-cut feedback	0	1	2	3
Clear aims	0	1	2	3
Control of situation	0	1	2	3
Pleasure	0	1	2	3

## First Set of Videos

### Video 1.

	Not present	Low intensity	Medium intensity	High intensity
<b>1. FOCUSED ATTENTION</b>				
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3

21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>1. CLEAR-CUT FEEDBACK</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 2.**

<b>2. FOCUSED ATTENTION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>2. CLEAR-CUT FEEDBACK</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 3.**

<b>3. FOCUSED ATTENTION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>3. CLEAR-CUT FEEDBACK</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3

16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 4.**

<b>4. FOCUSED ATTENTION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>4. CLEAR-CUT FEEDBACK</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 5.**

<b>5. FOCUSED ATTENTION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>5. CLEAR-CUT FEEDBACK</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 6.**

<b>6. FOCUSED ATTENTION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
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Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>6. CLEAR-CUT FEEDBACK</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 7.**

<b>7. FOCUSED ATTENTION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>7. CLEAR-CUT FEEDBACK</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

## Second Set of Videos

### Video 1.

<b>1. CLEAR GOALS</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>1. CONTROL OF SITUATION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>1. PLEASURE</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 2.**

<b>2. CLEAR GOALS</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>2. CONTROL OF SITUATION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>2. PLEASURE</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3



**Video 3.**

<b>3. CLEAR GOALS</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>3. CONTROL OF SITUATION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>3. PLEASURE</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 4.**

<b>4. CLEAR GOALS</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>4. CONTROL OF SITUATION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>4. PLEASURE</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 5.**

<b>5. CLEAR GOALS</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>5. CONTROL OF SITUATION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>5. PLEASURE</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

Video 6.

6. CLEAR GOALS	Not present	Low intensity	Medium intensity	High intensity
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

6. CONTROL OF SITUATION	Not present	Low intensity	Medium intensity	High intensity
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

6. PLEASURE	Not present	Low intensity	Medium intensity	High intensity
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

**Video 7.**

<b>7. CLEAR GOALS</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>7. CONTROL OF SITUATION</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

<b>7. PLEASURE</b>	<b>Not present</b>	<b>Low intensity</b>	<b>Medium intensity</b>	<b>High intensity</b>
Full Session	0	1	2	3
0 to 5 minutes	0	1	2	3
6 to 10 minutes	0	1	2	3
11 to 15 minutes	0	1	2	3
16 to 20 minutes	0	1	2	3
21 to 25 minutes	0	1	2	3
26 to 30 minutes	0	1	2	3

## Free Comments

### Video 1.

**1. Free Comments:** write everything you found interesting and meaningful. Take note of the minutes/secs. of special fragments more interesting and meaningful.

### Video 2.

**2. Free Comments:** write everything you found interesting and meaningful. Take note of the minutes/secs. of special fragments more interesting and meaningful.

### Video 3.

**3. Free Comments:** write everything you found interesting and meaningful. Take note of the minutes/secs. of special fragments more interesting and meaningful.

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Video 4.

**4. Free Comments:** write everything you found interesting and meaningful. Take note of the minutes/secs. of special fragments more interesting and meaningful.

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Video 5.

**5. Free Comments:** write everything you found interesting and meaningful. Take note of the minutes/secs. of special fragments more interesting and meaningful.

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**Video 6.**

**6. Free Comments:** write everything you found interesting and meaningful. Take note of the minutes/secs. of special fragments more interesting and meaningful.

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**Video 7.**

**7. Free Comments:** write everything you found interesting and meaningful. Take note of the minutes/secs. of special fragments more interesting and meaningful.

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# ANNEX 7: FLOW OBSERVATION SCHEDULE SIMPLY FORM FOR THE LINK PROJECT (Tarr & Addressi)



Learning in a New Key Engaging Vulnerable Young People in School Education. Agreement No: 2015-1-UK01-KA201- 013752

## Simplified version

### Observations re FLOW variables in CLASS

DATE

1= Low Intensity 2 = Medium Intensity 3 = High Intensity

Time Intervals

Focussed attntion	Start	End
looks carefully at and explores the musical instrument and /or is focused on particular musical idea, thereby perpetuating activity with concentration		
explores some parts of the instrument or other objects: <i>for example, plays only the black keys, or all the keys from the lowest to the highest, etc</i>		
listens attentively to own productions and the production of the partner(s)		
Clear cut feedback	Start	End
looks carefully at and explores the musical instrument and /or is focused on particular musical idea, thereby perpetuating activity with concentration		
Clear goals	Start	End
shows herself/himself to have the aim of exploring the parts or sounds of the instrument or of developing a musical idea		
shows herself/himself to have the aim of exploring physical gestures to produce sounds		
has the goal of discovering the rules of interaction and musical dialogue with the partner/s and / or of teaching a particular musical pattern		
Control of situation	Start	End
understands that he/she can start/interrupt the performance or exploration when he/she wants		
the movements and or explorations are well controlled, both during the listening and playing;		
he/she plays, stops, listens to the response of the partner(s) and responds by repeating/ changing musical ideas, engaging in collaborative playing, learning to respect the turn taking		
Clear goals	Start	End
smiles and/or laughs, is calm, shows no displeasure, repeating actions she/he likes		
speaks with the partner(s) and shares with him/her/them the joy through words and gestures;		

State of FLOW	Start Point= /36 = %	End Point = / 18 = %
Sensory Flow	Start Point= /36 = %	End Point = / 18 = %
Relational Flow	Start Point= /36 = %	End Point = / 18 = %

**ANNEX 8: INFORMATION ABOUT THE LINK PROJECT  
ACCOMPANYING THE CONSENT FORM FOR PARENTS**

## **Progetto Europeo LINK - Learning in a New Key Engaging Vulnerable Young People in School Education**

**Partner Italiani: MusicSpace Italy, Unibo (Dip. Scienze dell'Educazione), Istituto Comprensivo Granarolo dell'Emilia**

### **Cos'è il Progetto LINK?**

Il Progetto LINK, *Learning in A New Key. Engaging Vulnerable Young People in School Education* è un progetto co-finanziato dalla Commissione Europea nell'ambito del Programma Erasmus Plus (Call: 2015, KA2 - Cooperation for Innovation and the Exchange of Good Practices, Strategic Partnerships for school education). Il progetto si articola in due anni (Settembre 2015- Settembre 2017).

### **Qual'è la finalità generale del progetto?**

L'obiettivo del progetto è quello di sostenere gli insegnanti della scuola primaria e scuola secondaria di I grado ad estendere le loro competenze professionali attraverso percorsi di formazione relativi all'utilizzo delle pratiche musicali, musicoterapiche e artistiche al fine di arricchire l'offerta formativa nello specifico ambito dell'educazione emotiva e sociale degli studenti che presentano varie forme di disagio.

### **Quali sono i Paesi Partner e le Istituzioni coinvolte?**

Il progetto comprende una partnership composta da 4 istituti scolastici e da 3 istituti universitari provenienti da 4 paesi europei (Italia, Gran Bretagna, Polonia e Portogallo) con differenti e complementari profili professionali nell'ambito della formazione, della ricerca in ambito educativo e della musicoterapia.

In Italia le istituzioni coinvolte sono: l'Associazione MusicSpace Italy, il Dipartimento di Scienze dell'Educazione dell'Università di Bologna e l'Istituto Comprensivo Granarolo dell'Emilia (BO).

In ambito nazionale, il progetto LINK ha ricevuto una dichiarazione d'intenti da parte della Direzione Generale per lo studente, l'integrazione e la partecipazione del Ministero dell'Istruzione, dell'Università e della Ricerca con la quale l'Ente stesso si impegna a contribuire alla buona riuscita del progetto con un supporto scientifico a titolo gratuito e a partecipare alle attività di disseminazione che saranno previste nelle varie fasi del progetto in Italia e all'Estero.

### **Quale è stato il coinvolgimento dell'Istituto Comprensivo nel primo anno del progetto?**

Il progetto ha visto finora la partecipazione di 7 Docenti afferenti alla Scuola Secondaria di primo grado e alla scuola Primaria che sono stati coinvolti in uno specifico percorso di formazione. L'Istituto Comprensivo ha inoltre organizzato, in collaborazione con gli altri partner italiani, alcuni eventi di disseminazione del progetto nel periodo di Aprile - Giugno 2016.

### **Quale sarà il coinvolgimento dell'Istituto Comprensivo Granarolo dell'Emilia nel progetto per il secondo anno di progetto?**

Il progetto, inserito nel Piano dell'Offerta Formativa approvato dall'Istituto Comprensivo, prevede anche per il secondo anno la partecipazione di docenti afferenti alla Scuola Primaria e alla Scuola Secondaria di primo grado al percorso di formazione previsto dal progetto.

L'Istituto Comprensivo sarà inoltre coinvolto nella partecipazione ad un'indagine volta a cogliere le ricadute del progetto sulla realtà scolastica. Tale indagine sarà coordinata dal gruppo di ricerca del Dipartimento di Scienze dell'Educazione dell'Università di Bologna coinvolto nel progetto LINK e vedrà anche una fase di tipo comparativo con gli altri partner europei del progetto.

L'indagine sarà condotta attraverso la compilazione di alcuni brevi questionari - proposti ai docenti coinvolti nel progetto e agli alunni delle loro classi - che consentiranno di comprendere l'efficacia del progetto nel favorire processi di inclusione nella scuola. Si precisa che tale raccolta dati non riguarderà dati sensibili e prevederà la compilazione dei questionari stessi in forma anonima. In taluni casi potrà essere richiesto il consenso a riprese audio/video. Al fine di raccogliere l'adesione a tale indagine, ai partecipanti sarà richiesta la compilazione del modulo di consenso allegato che è stato predisposto dall'Università di Bologna e che, per gli alunni, sarà compilato dai genitori/tutori. Tale modulo indica le norme relative all'utilizzo dei dati secondo gli specifici riferimenti legislativi europei ed italiani.

I risultati di tale indagine avranno una ricaduta sulle realtà educative coinvolte nella ricerca nella misura in cui questi strumenti s'inseriranno nella rete di apprendimento e nei processi relazionali che marcano profondamente le valenze culturali e psicologiche di tali realtà.

Pertanto, si desidera ringraziare anticipatamente la comunità scolastica per la preziosa collaborazione.

## ANNEX 9: AGREEMENT DOCUMENT BETWEEN ICGE AND UNIBO



DIPARTIMENTO DI SCIENZE DELL'EDUCAZIONE  
"GIOVANNI MARIA BERTIN"

*Alla cortese attenzione*

*Dirigente Scolastico*

*Prof.ssa Maria Grazia Cortesi*

*Istituto Comprensivo Granarolo dell'Emilia*

*Via Roma, 30*

*40057 Granarolo dell'Emilia, BO*

**OGGETTO: approvazione del protocollo di ricerca, nell'ambito della collaborazione tra il Dipartimento di Scienze dell'Educazione dell'Università di Bologna e l'Istituto Comprensivo Granarolo dell'Emilia, per il progetto di ricerca europeo *LINK- Learning in A New Key. Engaging Vulnerable Young People in School Education*, progetto co-finanziato dalla Commissione Europea nel Programma Erasmus Plus (Call: 2015, KA2 - Cooperation for Innovation and the Exchange of Good Practices, Strategic Partnerships for school education, Agreement n. 2015-1-UK01-KA201-013752).**

Gent.ma Prof.ssa Maria Grazia Cortesi,

relativamente al progetto specificato in oggetto, al quale sia l'Università di Bologna sia l'Istituto Comprensivo Granarolo dell'Emilia partecipano in qualità di partner, si illustrano qui di seguito gli aspetti relativi alle modalità di svolgimento del protocollo di ricerca per l'indagine relativa all'Impact study n.2 previsto dal progetto LINK, di cui l'Università di Bologna è responsabile. Tale studio sarà condotto dal team di ricerca UNIBO del Dipartimento di Scienze dell'Educazione dell'Università di Bologna.

Si riporta qui di seguito la specificazione degli aspetti relativi alla partecipazione allo studio degli alunni e dei docenti dell'Istituto Comprensivo e delle norme etiche entro le quali l'indagine sarà condotta domandando di ricevere su tali norme la firma per accettazione da parte dell'Istituto Comprensivo stesso. A completamento di tali norme esplicative, si invita a prendere visione degli allegati (questionari per la raccolta dei dati, un documento contenente le indicazioni per la

somministrazione dei questionari, 3 tipologie di modulo di consenso, un documento di descrizione del progetto LINK) che si inviano unitamente alla presente lettera. Nell'ambito della collaborazione già in atto tra l'Università di Bologna e l'Istituto Comprensivo Granarolo dell'Emila nel Progetto LINK, si richiede pertanto l'approvazione del protocollo di ricerca qui di seguito specificato.

### **Impact study n.2, progetto Europeo LINK**

**Spazi:** aule della Scuola Primaria “Anna Frank” e della Scuola Secondaria di primo grado “P. Matteucci” ;

#### **Classi coinvolte:**

##### Scuola Primaria “Anna Frank”

classi terze (sezioni A e B) e classe quarta (sezione C); la classe terza (sezione E) sarà coinvolta nell'indagine al fine di poter comparare i dati relativi ai questionari con un gruppo di alunni i cui docenti non svolgono le specifiche attività del percorso di formazione previsto dal progetto.

##### Scuola Secondaria di primo grado “Pellegrino Matteucci”

classe prima (sezioni B e C), classe terza (sezione D); la classe prima (sezione D) e la classe terza (sezione B) saranno coinvolte nell'indagine al fine di poter comparare i dati relativi ai questionari con un gruppo di alunni i cui docenti non svolgono le specifiche attività del percorso di formazione previsto dal progetto. Al progetto parteciperanno inoltre alcuni alunni dell'indirizzo musicale.

**Raccolta dati:** i dati saranno raccolti tramite questionari *self-report* proposti sia ai docenti (v. Allegato 1) sia agli alunni (v. Allegati 2, 3) che non prevedono la compilazione con dati sensibili e che saranno compilati in forma anonima. Si allegano alla presente lettera le norme che saranno seguite per proporre agli alunni la collaborazione a tale raccolta dati (v. Allegato 4). L'indagine prevede anche la videoregistrazione di alcune attività del progetto per lo studio di casi singoli. Ai docenti partecipanti al progetto sarà inoltre richiesta la partecipazione a gruppi tematici di discussione (*Focus Group*) sulle ricadute professionali che saranno documentati attraverso la registrazione audio.

**Tempi:** a.s. 2016-'17 (Novembre 2016- Maggio 2017). I giorni e gli orari di svolgimento della somministrazione dei questionari, dei *Focus Group* e dei protocolli osservativi per lo studio dei casi singoli, saranno concordati con le insegnanti delle classi che parteciperanno alle attività previste dal protocollo d'indagine.

**Materiali:** questionari (v. Allegati 1, 2, 3), registratore per i *Focus Group*, videocamera per lo svolgimento dei protocolli osservativi per lo studio dei casi singoli.

#### **Ricercatori e collaboratori del team di UNIBO che accederanno alle Scuole:**

- Prof.ssa Anna Rita Addressi (responsabile scientifico);

- Dott.ssa Luisa Bonfiglioli (ricercatrice per il progetto LINK);
  - eventuali tirocinanti e laureandi della Scuola di Psicologia e Scienze della Formazione dell'Università di Bologna
- (con il ruolo di supporto all'attività di ricerca).

Si precisa che il personale che accederà alle Scuole è coperto dall'assicurazione della propria istituzione di appartenenza o da forme assicurative individuali private. Le tirocinanti sono coperte dall'assicurazione universitaria.

**Moduli di consenso.** Per la raccolta del consenso alla partecipazione allo studio è stato predisposto uno specifico modulo che sarà consegnato ai partecipanti all'indagine (docenti ed alunni). Per gli alunni delle classi coinvolte nell'indagine, tale modulo di consenso sarà firmato da un genitore/tutore dell'alunno e sarà differenziato in base al tipo di partecipazione richiesta (v. Allegato 5 per il consenso alla compilazione dei questionari sopracitati e Allegato 6 per il consenso alla compilazione dei questionari unitamente alle registrazioni audio-video). Ai docenti coinvolti nel progetto sarà consegnato direttamente tale modulo di consenso per la compilazione dei questionari e per le registrazioni audio effettuate nei *Focus Group* (v. Allegato 7). Nel caso specifico dei protocolli osservativi per lo studio dei casi singoli sarà richiesto il consenso al docente per le registrazioni audio-video. Si precisa inoltre che, al fine di informare adeguatamente i partecipanti all'indagine e i genitori degli alunni, sarà consegnato un documento esplicativo sul progetto LINK e sulle finalità dell'Impact Study n.2 (v. Allegato 8).

In attesa della Sua gentile risposta, Le porgo Distinti Saluti.

Bologna, 20 novembre 2016

Prof.ssa Anna Rita Addressi

Responsabile Scientifico del Progetto LINK  
Alma Mater Studiorum-Università di Bologna