

Technology for Well-Being at School. App iNclusion by CeDisMa: A Support for Teachers to Teach Inclusively, for Students to Really Learn

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Abstract. The iNclusion App by CeDisMa (available in iTunes Store: <https://itunes.apple.com/it/app/inclusion/id1093478813?mt=8>) is an innovative research tool that allows to integrate quantitative data with qualitative analysis. This application invites teachers to reflect upon motivation and technology. Answering to the questions included in the App, teachers will collect information about their students' approach to learning, including students with special needs or learning disabilities; motivation and classroom management; the effects of best practices on classroom management in the teaching-learning process.

Keywords: Well-being · School · Technology · Inclusion · App · iNclusion

1 Introduction

Based on the research project “Motivation and Pedagogy: a study of the relationship between social inclusion and class management” (it is a study by Ilaria Folci teacher and researcher at Catholic University of Sacred Heart, in Milan), the Study and Research Centre on Disability and Social Marginality (CeDisMa, Centro Studi e Ricerche sulla disabilità e la marginalità, <http://centridiricerca.unicatt.it/cedisma>, directed by Luidi d’Alonzo) has developed an application for teachers in cooperation with Marketing Media Network (a business structure in Milan that promote ICT solutions for school, expert and corporation, <http://www.mmn.it>). CeDisMa’s main interest areas are: developing knowledge on education, leaning, teaching and training professionals in the field of special education needs. The Centre primarily deals with education, special needs and social inclusion. It cooperates with local administrations on projects financed by the EU Structural Funds for equal opportunities. It currently organizes post-graduate courses on care, education and training based on European programs. Marketing Media Network (MMN) promotes ICT solution for business and technical support in education processes (also through Apple’s partnership). The project has grown out of a multidisciplinary team (CeDisMa’s teachers and researchers together with MMN’s ICT experts) whose joint efforts made their idea far more complete and valuable [14] This tool will help to analyze and understand how a

student's well-being influences motivation in learning. Several variables must be taken into account in the teaching-learning process. Motivation, defined as proactive acting in order to reach set targets, is definitively one of them. Scientific studies in this field are based on the assumption that the dynamics of motivation are determined by multiple social, cognitive and emotional factors such as:

- Self-concept;
- Perception of competence;
- Locus of control effects;
- The goals that the student aims at achieving;

Evertson and Weinstein's considerations [8] are particularly interesting in these regards as they underline the positive consequences of motivated acting in the personal development of a sense of responsibility and self-regulation when being in the class, studying, dealing with classmates and, in general, towards the educational and learning processes.

1.1 Motivation and Pedagogy: Best Practices for Inclusion and Classroom Management

Nowadays, studies on motivation are based upon the awareness that its underlying dynamics result from the influence of several factors – social, cognitive and emotional – such as self-concept, perception of competence, locus of control effects and the goals that the student aims at achieving (see Deci and Ryan, who listed the three needs that determine the individual's approach to motivation: competence, affection and autonomy; see also Harter, who relates self-concept with motivation, asserting that the latter is influenced by the self-concept that the individual has, according to age and other contextual aspects). These causes are strictly connected with elements of the social environment and they are mediated by pedagogical and educational practices. On the basis of these studies, it is necessary to consider that “motivational orientation that better takes into account the fact that motivational behavior is not a mere consequence of a ‘need’ or ‘push’, it is instead a pattern or result of many cognitive and emotional factors, which influence the start and the continuation of the effort towards an objective” [1]. Therefore, it plays a fundamental role in how individuals set their own goals. The choice of goals is directly linked to the individuals' inclination to achieve success or avoid failure, and to their beliefs on the value of the results, which are good indicators of positive behaviors [7].

These considerations are very important, especially when challenging students are concerned. Finding academic goals that the students themselves perceive as achievable motivates them towards this target.

In this framework, teachers play a fundamental role because through specific teaching techniques, they can support a proactive learning behavior and improve learning success. Classes–environments in which each student's individual needs coexist - should be managed in an inclusive manner, to support each student without losing the focus on the whole group. The class social and relational mood affects the learning process, which is itself linked to all of the entities involved in the educational process: teachers, students, family, specialists and the whole school network.

Establishing an adequate environment, both as a physical space and as a collection of material, human and symbolic resources, influences the quality of the students' performance and allows teachers to value and respect each student's potential. Teachers work in a class and must therefore be aware that they are operating in a group dimension. The students didn't choose to belong to the group itself, but they are forced to accept it and be an active part of it [4].

The tools for effective teaching are defined as "the pillars of class management" [6] that current studies have identified as necessary to positively influence students. A good class management lies in the teacher's ability to show his/her students the right educational path, to promote a proactive attitude to learning, to meet the students' personal needs and, while supporting and keeping a profitable learning environment [5]. Therefore, it is clear that some of these teaching factors influence the individuals' motivational needs, fostering or inhibiting school performances. We are referring specifically to:

- Approaching studying with enthusiasm and fluency;
- Managing more activities simultaneously [5];
- Diversifying to be committed [5].

These factors are strictly connected with elements of the social context and they are mediated by daily teaching and educational practices.

Teachers play a fundamental role because they play a key role in a successful education and decrease the risk of failure through specific teaching strategies.

2 iNclusion App: Research Summary


In the field of education, the well-being of students is a necessary condition to make them feel included, accepted, part of the class and therefore ready to learn. iNclusion App is a technological tool for Italian teachers to analyze how the classroom management can support students' motivation. It is based on a qualitative questionnaire which will be filled in by primary, middle and secondary school teachers (in Italy) to find out how often they implement educational actions. These actions include:

- Letting teachers' beliefs about students' motivation and learning abilities emerge;
- Pushing teachers to implement some teaching strategies in order to increase students' motivation and learning levels;
- Analyzing the effect of teaching-related class management factors on students' personal motivation to learn, and their consequences on the whole class.

The App allows the collection of data through a specific Apple platform, Research Kit (<http://www.apple.com/it/researchkit>). Teachers can use the application with IOS devices and respond to the survey anonymously. The data will be analyzed by CeDisMa's research team. The App is 13.1 MB, it's the first version, it's in Italian and it is available in the App Store in the category "Education". To use the App you need IOS 8.4 or following.

iNclusion
 di Magnetic Media Network S.p.A.
 Apri iTunes per acquistare e scaricare le app.


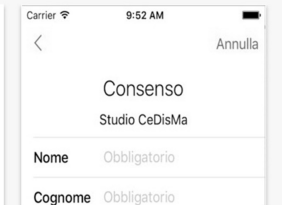
Altre app da questo sviluppatore



Descrizione
 iNclusion è l'app attraverso la quale i docenti delle scuole primarie e secondarie di I e II grado partecipano al progetto di ricerca "Motivazione e didattica: quali relazioni per l'inclusione e la gestione della classe?", promosso dal Centro Studi e Ricerche sulla disabilità e Marginalità (CeDisMa - UCSC di Milano).

Supporto per iNclusion > ...Altro

Istantanee iPhone | iPad

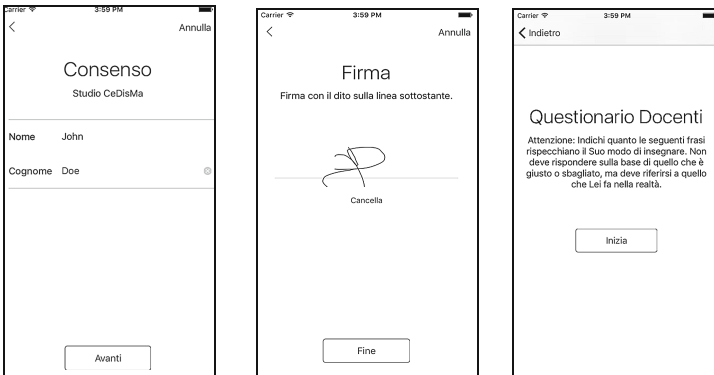
Visualizza in iTunes
 Quest'app è progettata per iPhone e iPad

Gratuiti
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 Pubblicato: 25/03/2016
 Versione: 1.0
 Dimensioni: 13.1 MB
 Lingua: Italiano
 Sviluppatore: Magnetic Media Network S.p.A.
 © MMN
 Valutazione: 4+

<https://itunes.apple.com/it/app/inclusion/id1093478813?mt=8>

How teachers can use the App:

- they login to the format and agree to transfer their data to the platform;
- they read a short presentation about CeDisMa research center and the aim of the study;
- they enter the teacher's questionnaire;



(screen shoot by iNclusion App)

- they answer the questions (60 question about classroom management, students in the class, teacher and student needs - special needs included).



(screen shoot by iNclusion App)

The questionnaire will also drive teachers to reflect on the importance of students' motivation. A motivated student is a student that feels well in the class.

Good class management creates a positive work environment and therefore plays an important role in implementing a more functional “context” for learning, as a social and physical reality. The data collected will make it possible to analyze and “measure” the relationship between class management, students' motivation and the subsequent impact on their learning. The platform will allow the research team to provide a qualitative data analysis. Technology is no longer just a way of processing statistics and data, but it's an invaluable support for research. Teachers will find it useful to analyze their own class management skills and to share procedures, good practices and needs.

3 Research Kit: A Platform to Collect Data as Technical Tool for Research

Research Kit (<http://researchkit.org>) is an open source framework introduced by Apple that allows researchers and developers to create powerful apps for medical research. Easily create visual consent flows, real-time dynamic active tasks, and surveys using a variety of customizable modules that you can build upon and share with the community. And since Research Kit works seamlessly with Health Kit, researchers can access even more relevant data for their studies — like daily step counts, calorie use, and heart rate. The Research Kit platform will be used to collect data in order to create a database (or information repository). Up to now, similar repositories have only been available in the medical field.

In this study, access to the platform is granted through a dedicated application (“iNclusion”) that will allow teachers to fill in the questionnaire, and researchers to

process the data in real time. The easy-to-use application will allow teachers to reflect on their class management attitudes and their actions to foster learning.

CeDisMa Team can supervise data by way of platform:



The researchers login into the platform and can have a general view about the users' feedback:



The researchers can view all questionnaires and survey response.

The Research Kit platform makes it possible to obtain more quantitative data and the questionnaire allows the Research Centre on Disability and Social Marginality to study how teachers teach and manage their classroom. The more the data, the more reliable is the study itself. As Apple confirmed at the platform launch, the Research Kit will allow researchers to focus more on their studies rather than losing too much time in adding and storing data. We can login to the platform to view, analyze and export the data collected. Since the App was launched on March 25th, 2016, the amount of available data is still limited.

4 iNclusion App: A Support for Teachers to Teach Inclusively, for Students to Really Learn

iNclusion App can promote:

- Actions and interventions to encourage well-being, supported by technology
- Technologies to support students' engagement in learning processes;
- Technologies to enhance the social well-being.

The App stresses the importance of creating a collaborative and profitable environment in order to enhance learn in the classroom. To do so, relationships (teachers-students, students- students, students- teachers) are unavoidable. Teachers can be a “good guide” [10] in the classroom but only if they are able to involve their students in the teaching-learning process, making them feel like actors, not like passive passersby. Technology, if used by good teachers, can act as a support to teach inclusively and can help students to learn more [3].

The questions of the questionnaire invite teachers to observe their classroom from a new prospective and manage it in the best way possible to allow progress.

Each single class needs to be considered as a community having its own special needs, points of view as well as its very own approach to learning. When teachers teach on the basis of the Universal design for learning, they can be inclusive [9]. When teachers teach with different approaches, planning their lessons keeping into account their classes' special needs, they promote the well-being of their own students. Thanks to the iNclusion App, teachers can think over their own strategies to improve the learning environment in the name of inclusion of all their students. The first tool they need to use to do so is of course observation.

During the teaching-learning process, teachers can observe but they are also active in this process. Therefore they need a tool to enable them to lead the most impartial analysis possible, even though they are part of the process itself and not mere observers.

iNclusion App can be a support for teachers to observe the learning process, and to manage their classes in a rational way.

During the collection of data, teachers can focus on:

- classroom management [11];
- relationships in the teaching-learning process [12];
- students' behaviour in the classroom [2];
- best practices to teach [15].

iNclusion App can support teachers to teach and manage the classroom in order to create a positive atmosphere in the classroom.

Well-being in classroom is possible if:

- students have a good relationship to each other and also to teachers;
- teachers are able to teach inclusively and to support students to avoid failure;
- teacher's classroom management supports the learning process and the establishment of relationships;
- teachers promote motivation to learn.

Teaching and learning should bring joy. Every child deserves a champion, an adult who will never give up on them, who understands the power of connection, and insists that they become the best that they can possibly be [13].

Thanks to a simple app, teachers will be able to think over important subjects such as inclusion and motivation. If students feel actively part of a lesson, they can learn better and more effectively. This can be possible if teachers are able to select their methodology according to the single individuals they're teaching to. At moment data collected isn't too much, but the App is available from April 2016 and collection data started from 29 April 2016. However, feedback received (at moment) can support CeDisMa's thesis about the App' utility. During the data collection is also possible receive information about the critical element connected to the use and the efficacy of the App. iNclusion allows teacher to take part in the research, making their point and their need clear. Teachers are no more simple passive spectators or data readers, they have a chance to become proactive participants in research.

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