Edu app -

CLASSROOM COACH 360°

English Guide

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Written by Daniel Matzkin

Index

Summary

- **Objective:** Classroocoach360 is a collaborative app that helps teachers and students to strengthen their teaching-learning processes through rapid and repeated assessments of pedagogical, behavioral and socio-environmental factors that are critical to academic success, such as: student's *"participation level"*, *"pedagogical follow up"*, *"risk factors"*, and *"consensus indicators"*. Based on 360-degree assessments, Classroomcoach360 also provides the teacher and group an updated diagnosis of the classroom's dynamics. Results are easy to interpret and are based on the traffic light model: green light (ok); orange light (caution); red (problem).
- **Versions:** face-to-face; online learning/homeschooling modalities
- **Levels:** elementary/primary and secondary levels
- **Available languages:** English, French, Spanish.
- **Time:** Requires only 3 minutes use per week
- **Pricing:** 100% free and made available to the community. A link inside the app allows you to make a small donation that helps us to update and maintain the app

Why classroomcoach 360?

In many domains of activity, the Covid-19 2020/21 crisis has caused and generalized profound changes in people's habits, especially in the way they work, for example with the rise of home office, or in the way they consume with the boom in e-commerce. Undoubtedly the world of education experienced similar changes.

To date, it is not yet clear exactly how the partial or prolonged interruption of face to face school has affected the "teaching-learning" process in primary and secondary students. International student assessment tests (e.g., PISA) will probably shed light on this point in the years to come. What we do know, however, mainly through the thousands of testimonies of teachers, students, and parents, is a certain degree of dissatisfaction with the online learning model which has been imposed on an emergency and improvised basis in most schools of Western countries due to the pandemic. If we sort through these opinions, which are often similar from one country to another, we find that many teachers have complained about the little support (in paperwork and technology) they have received from their schools in order to do their work properly. from their homes. On the student side, many have complained about the boredom of zoom/meet classes and the difficulty in acquiring a methodology for studying outside the classroom. As for parents, especially those whose children attend elementary school, dissatisfaction generally results from

what they consider to be a lack of educational follow-up of their children by the teacher and school, associated with the difficulty of having to assume a role of tutor during working hours.

It is also worth highlighting the strong inequality of conditions existing between countries and schools in the management of the educational and emotional processes of students during the Covid pandemic. Despite initiatives of educational inclusion, generally assumed by the States, or existing technological solutions such as "Google for education", the technological gap as the obvious lack of preparation of the educational community should be emphasized. Such a situation created what can undoubtedly be described as an unprecedented educational crisis in the West.

In conclusion, these disruptive changes produced by the pandemic have highlighted the need for the educational community members (i.e., schools, teachers, students, and parents) to have a tool that allows real-time monitoring of the main factors that play a key role in strengthening or interfering with the "teaching-learning" process.

Now that the pandemic is behind us, the interest and scope for this type of device is not limited to the sole context of "online learning" but is just as beneficial for the traditional "face-to-face" system by allowing a better mutual understanding of the classroom's actors. This is precisely the service that classeroomcoach360 offers and that is presented below.

Classroomcoach360: a collaborative solution to boost the didactics of the "teaching-learning" process

Main objective

What is it exactly about? Classroomcoach360 is a "plugin", or a complement presented in the form of a webapp that adds a new functionality to the traditional management of a classroom by acting specifically as a "coach" of it. Actually, classroomcoach360 operates a real-time evaluation and comparison of a set of educational, behavioral and environmental variables with the main objective of facilitating the didactics of the "teaching-learning" process of the class in which the teacher and the students (and parents/ tutors) interact.

In practice, Classroomcoah360 realizes real time situational and differential diagnoses of the classroom, comparing the perceptions of the teacher to those of the students on different dimensions of the "teaching-learning" process, something akin to the "360 degree processes" carried out by organizations with their staff.

Schematically, this app can be compared to a thermometer that takes the temperature of the classroom and that is able to detect the existence of obstacles to the ongoing learning process.

Classroomcoach360 has been designed for primary/elementary and secondary school levels and covers both virtual ("at home") and "at school" teaching. Once registered, the use of the webapp does not exceed 3 minutes per week.

As a final word, if we had to summarize the essence of classroomcoach360 with a motto, it would be: "*Let's facilitate the teaching-learning process by continuously adapting the teaching strategies thanks to the real-time feedback coming from the class members!* "

Specific objective 1: achieve dynamic class profiles

The first specific objective of classroomcoach360 is to allow real-time monitoring of several key factors likely to hinder the "teaching-learning" process in its virtual and face-to-face modes, by generating updated situational diagnoses of the dynamics of the classroom. These key factors encompass pedagogical, behavioral, and environmental variables that students and teachers face during the school year, but which are rarely analyzed on a weekly basis.

Specific objective 2: assess the level of vision alignment between the teacher with that of the students on the classroom dynamics

The second objective of classroomcoach360 is to assess on an updated basis the "teacher-student" dynamic, by examining the degree of shared vision - or consensus - on the dynamics of the "teaching-learning" process which is in progress. This 360-degree approach is achieved by the means of indicators making it possible to establish a differential diagnosis of the classroom: the more the congruence of vision between the teacher and the students/parents is important, it is expected to facilitate the " teaching-learning " process in progress. In contrast, the more the divergence of perception between the teacher and the students/ parents increases, it is expected to obstruct the learning process.

Specific objective 3: a decision making support device

The third objective of Classroomcoach360 is a consequence of the first two. It is to provide the teacher and the students/parents with information enabling them to make decisions on their specific areas (for example, teaching methodology, home study strategies, attitude changes, etc.) in order to improve the "teaching-learning" process. Hence, classroomcoach360, by sharing updated indicators between all users of the classroom, is a device facilitating diagnosis and individual and collective decision-making.

How does Classroomcoach360 work?

Dynamics of the app: teacher, student, parent/tutor

Classroomcoach360 works with all mobile devices/tablets (android, iOS) and computers (Windows). A web browser and an Internet connection are required.

Once all users have registered, the teacher creates and manages a group that includes himself and all his students (or parents when groups belong to the elementary school level). Users will then be able to answer once a week the webapp's assessment questionnaire. Responses to the questionnaire are processed and shared in the result page where the performance indicators and educational adaptation appear (user's identity is always preserved and anonymity always respected). This way, throughout the school year, any user will be able to position himself by comparing the evolution of his individual performance indicators with those of the group and thus have information enabling him to achieve a positive change in his teaching or learning process.

For obvious reasons of supervision and understanding of the contents which are not exempt from a certain complexity, the elementary/primary school version of the webapp has been designed so that the parents or tutors of the kids are the ones in charge of using the webapp. It is therefore up to the responsible adult to periodically answer the webapp's questionnaire. Undoubtedly, it is the responsibility of the parent/tutor who holds a central position in the educational follow-up of the child (this being even more true in an online learning or homeschooling situation) that the answers to the questionnaire reflect the real feelings of the child and not just his own adult projection of his child's learning process.
As for high school students, they use the webapp directly without passing through the filter of an adult.

The working process of classroomcoach360 is shown in the following sequence and diagram:

1. Once the teacher and the students/parents have created their user accounts, the teacher creates the group and sends to his students an invitation link allowing them to join.

2. Starting from the daily work routine, once a week users (teacher and students/parents) will have to assess some features of the teaching-learning process which will then be processed by classroomcoach360. To do so, each user will have to answer the webapp's questionnaire.

3. With the questionnaire's answers, classroomcoach360 will compute the different performance indicators that characterize the classroom's profile. These values are updated as new data is added to the system.

4. These different indicators allow the teacher to consider changes to his teaching so that it best fits the characteristics of his students, or to maintain a teaching methodology that proves to be effective. Likewise, for the student, the comparison of his individual indicators with the group norms should allow him to consider the relevant changes (e.g.;, behavioral, methodological, etc.) to enhance his learning process.

5. After a week, the sequence of step 2 starts over again with a new self-assessment phase.
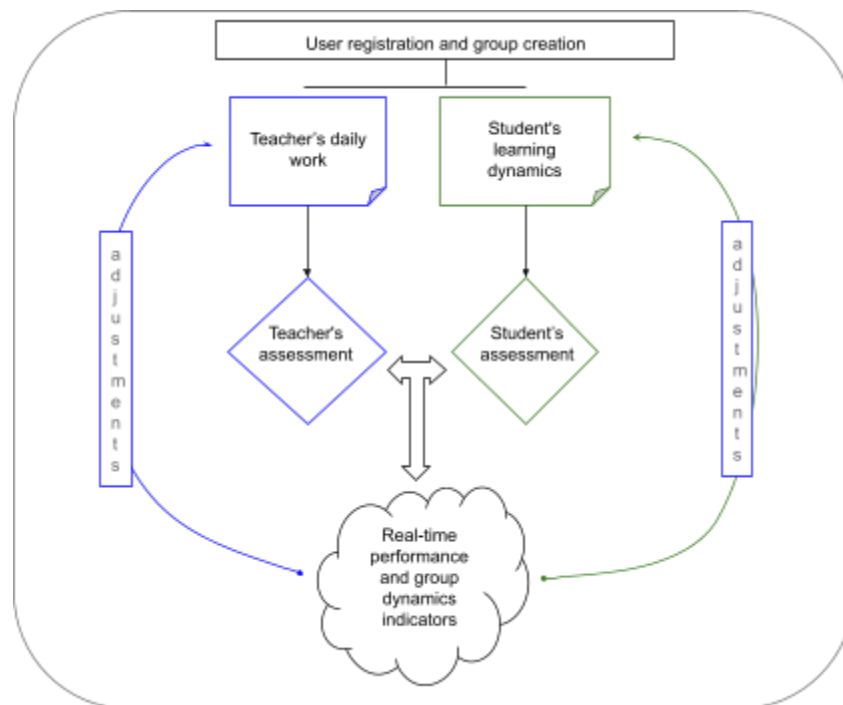
Diagram showing the flow of Classroomcoach360

The app tabs
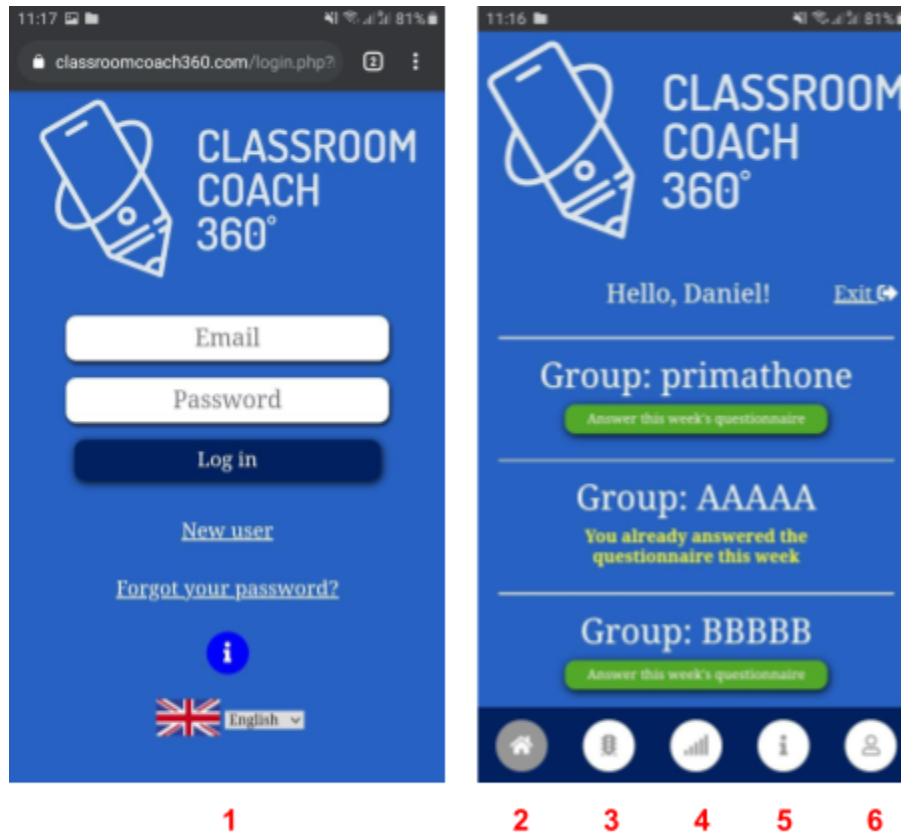
1. Access screen to login or create an account.
2. Main tab of the app that lists user's groups and the pending and completed week assessments.
3. Traffic light tab displays the individual, group, and consensus results which uses the colors of a traffic light as a straightforward interpretation code.
4. Tab that displays individual and group results represented on a "time axis", allowing to identify trends and patterns over time.
5. Tab that provides information about the app, key indicators, and contact email.
6. Tab that allows the user to create groups, modify his personal parameters, and upgrade to the paid version.

The Classroomcoach360 model

A pragmatic approach to the "teaching-learning" process

On what approach or educational model is classroomcoach360 based on? There is no doubt that the education sciences are characterized by their prolific "scientific" production. However, this abundance is not objectively an unequivocal sign of quality but also reflects the plurality of opinions which are based more on ideologies than on rigorous empirical experiments.

However, while there is a great deal of work on how to assess dynamics within a classroom, or how to motivate students with strategies, etc., the truth is that to date there is little literature on massive "teaching-learning" processes regarding online learning/homeschooling following a disruptive event such as a pandemic, or simply on the contribution of technology in real-time monitoring of the adaptation and satisfaction levels inside a classroom.

Another important - and perhaps somewhat controversial - element to consider is the fact that in many aspects, knowledge and innovation in education sciences stagnate over time. A clear illustration of this idea can be seen, for example, with motivation models some of which are over 70 years old. The same conclusion is reached with an equally important subject for education such as the study of group dynamics and the correlative phenomena of influence. Certainly, little has been produced since the pioneering work of Kurt Lewin or Leon Festinger in the first half of the 20th century, although it is worth mentioning the contributions like those of Peter Senge despite his systemic approach of group dynamics goes beyond 30 years. Obviously it would be quite wrong to conclude in the inexistence of important academic research on these issues. In an incipient way, 360 ° and systemic approaches in educational practice are taking more visibility.

From what precedes, it is clear that it is necessary to improve these classic approaches with other concepts and methods that match the needs of a new form of education born in a disruptive context and which must be able to take advantage of technology for educational purposes; technology that has definitely come to stay.

Thus, to the opening question regarding the approach upon which classroomcoach360 is based, the answer is clear and straightforward: none in particular. This singular response should be seen as a positive stand as classroomcoach360 is free from any ideological bias regarding educational concerns. Mainly, classroomcoach360 is based on the fundamental concepts specific to any pedagogical theory: pedagogical follow-up, adaptation, academic achievement, teacher-student bond, socio-environmental factors, group dynamics, etc., to which is added a technological layer. To be more precise, classroomcoach360 should not be assimilated to an educational model, but rather to a decision-making instrument. Actually, classroomcoach360 only processes data that allows the teacher and student/tutor to change their individual and collective strategies in order to improve the "teaching-learning" process; just that and nothing more than that.

On the other hand, the main contribution of classroomcoach360 to educational issues can be summed up through its three pillars: pragmatism, collaborative technology, and ethics.

- Pragmatism: classroomcoach360 is a pragmatic tool insofar as its purpose is exclusively practical: to assess some of the factors that hinder the "teaching-learning" process by a systematic collection of the learning problems that arise in the classroom. In this sense, classroomcoach360 focuses on data collection and thus avoids any ideological involvement.

- Collaborative instrument: classroomcoach360 is a collaborative device as its essence is based on information exchange provided by class members, thus making collective decision-making possible. This collaborative approach is made possible by technology which allows real time information exchange and storage. This represents undoubtedly an innovation to help primary and secondary school teachers refine their work. It is true that the collaborative approach is not a novelty in itself, but outside the university level it is clear that despite good intentions its practice has not yet become widespread in most schools. Still, it is true that the collaborative approach is not a novelty in itself, but outside university it is clear that despite good intentions its practice has not yet become widespread in the majority of schools.

- Ethics: classroomcoach360 is an ethically responsible webapp insofar as it meets two *sui generis* criteria for its working operation: respect for anonymity and transparency on information sharing.The anonymity of users is always guaranteed preventing the group admin from associating individual performance indicators with an identity. This allows all students to share information with full respect of the ethical and transparency requirements. In this, classroomcoach360 considers that "informational justice" and "procedural justice", two concepts belonging to the theory of organizational justice, are crucial when it comes to promoting effective collaborative work.

Finally, these two criteria intrinsic to the webapp largely contribute to neutralizing some of the cognitive biases commonly observed (and well documented) that occur during individual and group evaluations. These biases, as the "halo effect" or that of "social desirability", have the effect of contaminating the observed results.
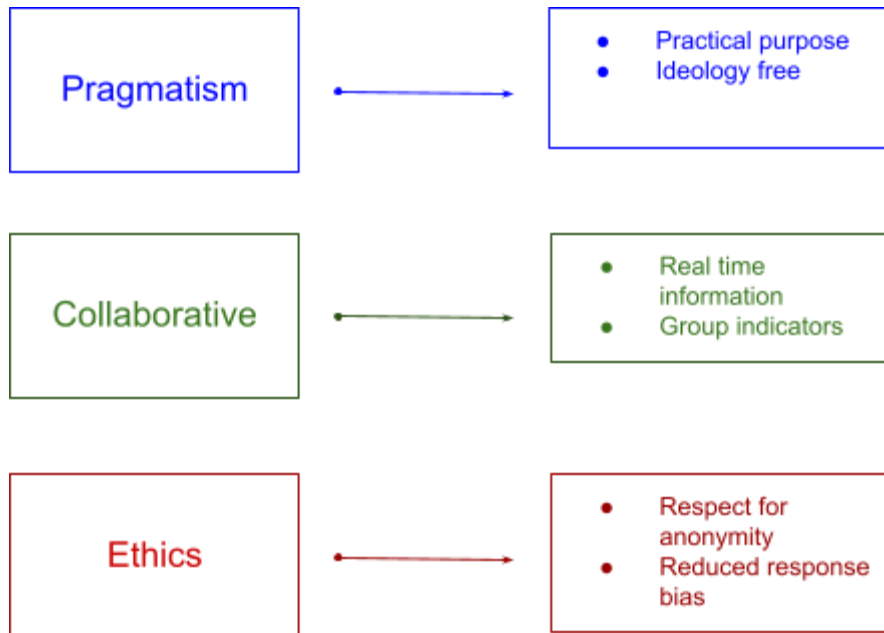
The 3 pillars of classroomcoach360

To conclude, it is important to re-emphasize classroomcoach360's goal is to model the dynamics of a classroom from the monitoring of certain evaluation criteria of educational interest. **In no way it intends to assess the teacher's work or the performance of a particular student.**

Domains assessed by classroomcoach360

Self-assessment questionnaires for teachers and students/parents are between 4 and 6 questions long depending on which version of classroomcoach360 is used. The number of questions is deliberately reduced to allow a quick assessment not exceeding 3 minutes. The processing of these allows classroomcoach360 to estimate the different performance indicators of the dynamics of the classroom. The self-assessment is repeated each week.

The content of the self-assessment questionnaires differs depending on the status of the user (teacher or student/parent), school level (elementary or secondary), and the teaching method (online learning/homeschooling or face-to-face school). Beyond the specificities of each version the core domains that are assessed do not differ much from one the other.

Domains assessed by the teacher:
1. Group dynamics and online presence
2. Homework handing in
3. Academic achievement

4. Communication with parents, pedagogical follow-up, and coordination with the school

Domains assessed by students/parents
1. Level of participation and online presence
2. Homework and workload
3. Adaptation level at school and in online learning/homeschooling
4. Work environment
5. Home support
6. Bond with classmates and teacher

To summarize, these domains can be regrouped into two broad categories of variables which reflect what classroomcoach360 evaluates: the variables associated with academic and pedagogical achievements, and socio-environmental variables which affect students' life on a daily basis.

The first category refers to the variables associated with student's learning outcomes and the support they receive from their teacher but also from parents/tutors (a fairly frequent situation with online learning); and of course through the analysis of group dynamics as an important criterion as a learning facilitator. In addition to the information provided by these variables, the "socio-environmental variables" are related both to the behavioral characteristics of the students (e.g., their adaptability with regard to the teaching methodology, the interpersonal relations built with peers and the teacher), but also to environmental aspects (e.g., access to educational and technological resources and the characteristics of their house and its occupants) which have the capacity to either facilitate or hinder the learning process.

The classroomcoach360 model

These two categories of variables represent the basis of classroomcoach360's model which is presented hereafter and that allows the webapp to establish an updated situational and differential diagnosis - or classroom profile - from: (1) the level of pedagogical follow-up received by the students, (2) student's participation in school activities and the group's dynamics, (3) student's adaptation to the teaching methodology and their academic achievements, (4) risk factors evaluation that may alter the "teaching-learning" process, (5) and no less important, the degree of consensus between the assessments made by the teacher and the students/parents on the "teaching-learning" process. This differential approach enables one to compare student's perceptions with that of the teacher, thus quantifying the level of shared vision within the group on the dynamics of the current "teaching-learning" process.

The following diagram shows the different relationships existing between the variables measured by classroomcoach360 which makes it possible to establish an updated classroom profile - or situational diagnosis. The very complex interactions between these variables will constrain the levels of performance and adaptation within the classroom.
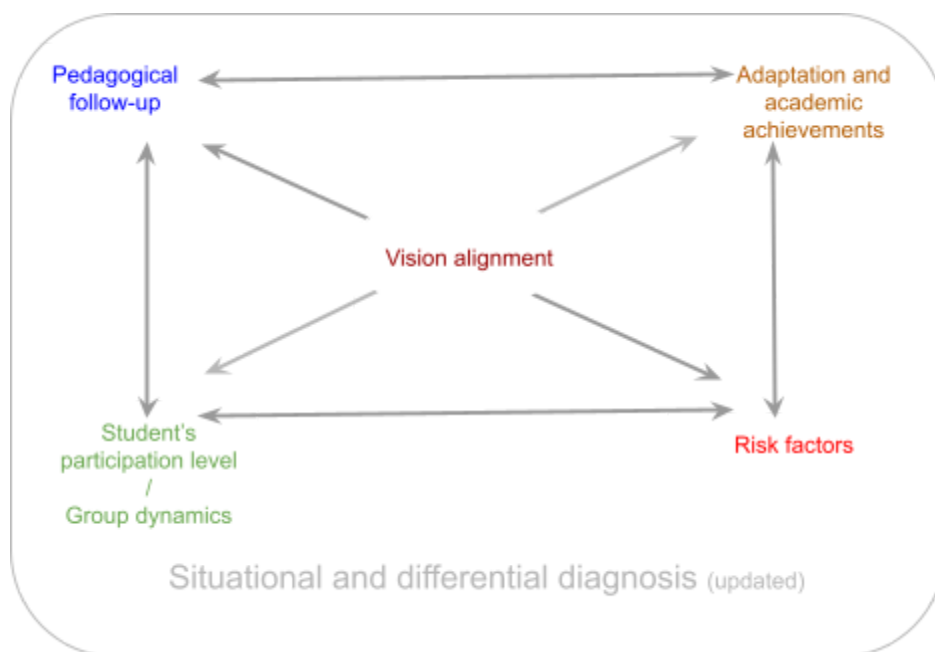
Model used by classroomcoach360 to diagnose the classroom

As stated earlier, classroomcoach360 is just an instrument that limits itself to supply information to users (teacher and students) so that they can adapt their "teaching-learning" process. **We reiterate that classroomcoach360 is not an educational theory or ideology that proclaims "what to do" but is limited reporting in real time the dynamics of what is happening in the classroom**.

Classroomcoach360's profile key indicators

In practice, classroomcoach360 processes the self-assessments it receives and from there computes the values of the different indicators that conform the classroom's profile. On the basis of its *sui generi* model (see previous paragraph), classroomcoach360 will show an updated diagnosis of the dynamics of the "teaching-learning" process happening in the classroom. Each user has access to their individual but also group values (these are the average values of all individual scores); these are viewable to all users and indicate the average - or central - characteristics of the classroom's dynamics.

1a. PARTICIPATION LEVEL: assesses students' participation in the activities proposed by the teacher, in particular in a homeschooling situation. This indicator provides an approximation of the student's compliance with his school obligations (participation and homework submission). It should not be taken as an indicator of his academic proficiency. In a homeschooling context, participation rate in online activities and homework handing-in are considered for this indicator.

1b. GROUP DYNAMICS: assesses the group's dynamics in relation to the behaviors that emerge in a normal "face to face" or presential school context. Within this school framework, are considered the level of attention and interest displayed by students in regard to the activities of the class as well as the frequency with which the teacher must use his authority to restore order inside the classroom. When this occurs with some regularity, it is a sign that group dynamics is negatively affecting the "teaching-learning" process. Obviously, this dynamic also fluctuates depending on the topics covered in class and the students' affinity with each of them.

2. PEDAGOGICAL FOLLOW-UP AND SUPPORT: assesses the student's/parent's perception on the teacher's follow-up in relation to the accomplishment of school activities. This indicator considers both the quantity and the quality of communication between the student and the teacher as well as the academic support provided by a parent or a tutor. In a homeschooling situation, the indicator assesses the speed with which the teacher updates the content of a platform, responds to student´s communications, and the quality of homework corrections. For the teacher, this indicator is used to assess the usefulness of communication with students and parents. In a normal face-to-face school situation, monitoring is more linked to intangible criteria such as the "teacher-student" bond and the communication established with the educational community (i.e., the school and families).

3. RISK FACTORS: these indicators assess the factors that can interfere with a student's learning process. In a "online learning/homeschooling" situation, the degree of adaptation to this study format is considered as the main risk factor. It results both from the individual characteristics of the student (e.g., his ability to be autonomous) and from environmental factors such as access to technological devices and a quiet study environment allowing him to normally accomplish all his school activities. In a normal face-to-face learning situation, intangible aspects are taken into account, such as the student's interactions with his peers and the teacher. Risk factor's magnitude may vary depending on the participation levels and support that students receive from the teacher and their parents or tutors.
From the **teacher's point of view**, the failure to achieve educational goals (school achievement) by a proportion of students is a sign that risk factors are interfering with the learning process.

4. CONSENSUS INDICATORS: they assess the level of shared vision - or consensus - between the teacher and the students/parents on the dynamics of the current "teaching-learning" process. These indicators cover the previous domains: *"participation level", "pedagogical follow-up and support"* and *"risk factors"* thus making it therefore to produce a differential diagnosis of the classroom.

How does classroomcoach360 defines consensus? The webapp posits that there is a shared vision between the teacher and the students/parents when the differences in judgments between these two groups on the criteria evaluated do not exceed a score of 25. On the contrary, when the differences in judgments exceed a score of 25, classroomcoach360 assumes that there is no longer a common vision or that it is limited. By generalizing this relationship, as the percentage increases in value, the consensus decreases:
- High consensus: score between 75-100
- Moderate consensus: score 60 < 75
- Low consensus: score between 0 < 60

High values of consensus suggest that the teacher and his students/tutors perceive the dynamics of the classroom in a similar way, which would facilitate the acceptance on both sides if changes in didactics were to occur. On the other hand, a moderate or low level of consensus would indicate a lesser degree of shared vision between what the teacher and the students/parents perceive as to the classroom's dynamics. Such a situation would most likely reflect a moderate academic performance of students and/or a rather poor communication with the teacher, auguring potential difficulties for necessary changes in the classroom to be easily accepted.

It will likely occur that the degree of consensus between the teacher and his students/parents will never be absolute, meaning that consensus will not cover all the consensus criteria.

Regarding the 'risk factors' consensus indicator, it is important to point out the following: due to the different nature of the risk factors that are assessed by the teacher and the students/parents, the value of this indicator can frequently show an important difference between the teacher's and the student's perceptions. For example, it may be that for the teacher, according to his assessment, there are not a priori obvious risk factors that are affecting the learning process. Conversely, students/parents may have a different evaluation on this point. In such a case, this perception shift will allow the teacher to investigate more about what may be happening with some of his students.

5. **N (/):** indicates the number of active students who completed the most recent assessment as it may occur that not all group members will not contribute each week to the assessment.

Finally, it is true that the classroomcoach360 indicators which have just been described and which characterize the dynamics of the classroom are relatively generic. Consequently, it is obvious that the sharp interpretation of the classroom dynamic must be clearly contextualized according to the version of the webapp being used (homeschooling or face-to-face modalities) and the personalities within the group. As we will see in the next section regarding results presentation, classroomcoach360 displays both individual and group results.
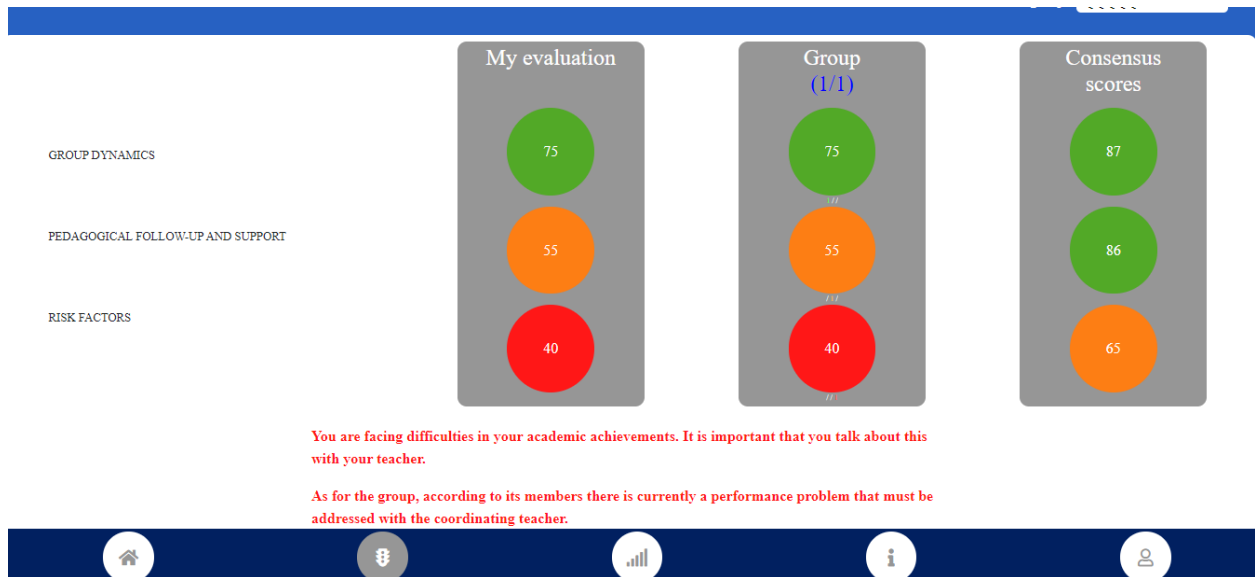
Interpretation of individual and group results

This part explains how to read and interpret individual and group results with classroomcoach360. Results are presented in two different formats and are accessible from two tabs: (1) the tab which symbolizes a "traffic light"; it reports the different indicators of the dynamics of the class that we have just seen and which are updated in real time on the basis of the self-assessment that feed the system. (2) the tab which symbolizes a "chart"; it shows the evolution of the results on a time axis, thus allowing the visualization of individual and group trends over weeks and months. Keep in mind that individual results are never visible to other users. The parameter "N" displayed in the first tab indicates the number of active participants in the group and on which classroomcoach360 performs all the calculations. For example, a display of N = 17/24 indicates that the last classroom profile was established on 17 users and that 6 others did not participate. It may therefore happen that not all students/parents of the classroom will always participate in the weekly assessment session. This is why it is important to consider the value of "N" when interpreting the results and to what extent these are representative of the group. It is therefore essential to constantly encourage the participation of all users.

The "red light" model

In the "red light" tab, the values reported by classroomcoach360 are numerical and express quantitative estimates in an interval [0; 100] (the higher the value, the greater the magnitude of the indicator) but also qualitative information according to the "red light model" which complements the interpretation of the numerical result. The latter, like the operation of a traffic light, provides clear information according to its three colors:

- **"Green"**: a numerical value on a green background indicates that this indicator does not interfere in the "teaching-learning" process.

- **"Orange"**: a numeric value on an orange background is a warning sign suggesting a problem that is interfering with the "teaching-learning" process and that needs to be controlled and addressed.

- **"Red"**: a numeric value on a red background is an alert sign indicating the existence of a problem that must be attended to as a priority.

	My evaluation	Group (1/1)	Consensus scores
GROUP DYNAMICS	75	75	87
PEDAGOGICAL FOLLOW-UP AND SUPPORT	55	55	86
RISK FACTORS	40	40	65

You are facing difficulties in your academic achievements. It is important that you talk about this with your teacher.

As for the group, according to its members there is currently a performance problem that must be addressed with the coordinating teacher.

Profile indicators guideline

Below are presented two tables that allow the teacher and student/parent user to properly interpret each of the profile indicators. The questions in the table are what users should ask themselves when correctly interpreting the profile results.

Primary/elementary level

	What questions should I ask myself?	
Indicator	**Teacher's perspective**	**Student/parent's perspective**
PARTICIPATION LEVEL (online learning)	- Are students connecting or is there some level of absenteeism? - Are the students fulfilling their individual and group assignments?	- Is my child currently participating regularly in online activities? - Is my child turning in his individual and group assignments?
GROUP DYNAMIC (face to face learning)	- Do I notice any curiosity of the group towards teaching contents and/or do I have to manage discipline problems? - Are the students fulfilling their individual and group assignments?	- Is my child currently showing any interest in study content or is he distracted in class? - Is my child turning in his individual and group assignments?

PEDAGOGICAL FOLLOW-UP AND SUPPORT	- Do I feel that communication with my students is fluid and that they pay attention to my indications and suggestions? - Do I feel that parents are involved with their children's schooling?	- What do I think of the pedagogical monitoring carried out by the teacher and school authorities to my child's learning process? - Do I support your child with lessons and homework? - How do I perceive the teacher's bond with my child?
RISK FACTORS	- Currently, how do I evaluate the academic achievements of my students? Did they meet the learning objectives? Do the other factors play a negative role?	- Do I perceive any adaptation problems with the learning model? - Is my home equipped and adapted so that my child can study online? - How do you currently perceive your child's ties with his peers? Are they positive or inhibiting him?

Secondary level

	What questions should I ask myself?	
Indicator	**Teacher's perspective**	**Student's perspective**
PARTICIPATION LEVEL (online learning)	- Are students connecting or is there some level of absenteeism? - Are the students fulfilling their individual and group assignments?	- Am I currently participating regularly in online classes?
GROUP DYNAMIC (face to face learning)	- Do I notice any curiosity of the group towards teaching contents and/or do I have to manage discipline problems? - Am I creating a good atmosphere in the classroom and building cheerful ties with my students?	- How do I currently perceive the links with my teachers? - Currently, how do I perceive the ambiance within the classroom with the teachers and my classmates?

PEDAGOGICAL FOLLOW-UP AND SUPPORT	- Do I feel that communication with my students is fluid and that they pay attention to my indications and suggestions? - Do I feel that the coordination with my peers and school authorities are supportive at work	- How do I consider the pedagogical follow-up carried out by my teachers and the school authorities? - If I need it, do I have support at home for a lesson or homework?
RISK FACTORS	- Currently, how do I evaluate the academic achievements of my students? Did they meet the learning objectives? Do the other factors play a negative role?	- Do I have adaptation problems with the educational model? - Is my house equipped and adapted so that I can study online? - Am I currently managing study load properly in the different subjects? - Do I currently feel comfortable in the classroom with my classmates?

Summary text

Under the results shown by the red lights is shown a short text made of three sentences which summarizes the key points of the dynamics of the class which has just been assessed by users. This text updates automatically after each new assessment. At the end of each sentence a colored symbol enhances the text according to the color code of the red light model.

Sample summary text:

"Good! Currently, your course in class is satisfactory (✪). As for the group, members feel that an effort should be made to increase the 'participation level' (✪). Note that there is currently a moderate consensus between students and the teacher on the dynamics of the classroom. Identify areas where consensus can be improved (✪) ".

Charts

Whereas the red light model values show a snapshot of the moment on the classroom's dynamics, charts show the evolution of this dynamic over weeks and months. These graphical

reports give the teacher important information about the effectiveness of his teaching method on his students. For students/parents, temporal information allows them to check their individual progress and against that of the group over a given time interval.

The 2x2x2 versions of classroomcoach360

Classroomcoach360 is a single webapp but offers different options depending on the characteristics of the users and the academic context in which it is used. We detail this below.

"@t home" and "@t school" versions

There are two versions of classroomcoach360 which are interchangeable, that is which offer the possibility to switch from one version to another at any time according to the needs of the teacher. As the name suggests, the *"@t home"* version is specific to a homeschooling or online learning situation, while the *"@t school"* version is typical of a normal learning situation taking place inside a school. What changes from one version to another concerns some of the domains that are assessed as different factors specific to homeschooling and face to face schooling processes are assessed differently. To use both versions (at home and at school) the group admin will have to create 2 specific groups with the same members

The use of the *"@t home"* version is not necessarily limited to extended situations such as those experienced during the Covid-19 pandemic but can be used occasionally by the teacher, for example, as part of an educational project that students must accomplish at home. Thus, according to the teaching needs, the use of one version or the other can be alternated without losing the record of past indicators of the group. The group admin defines the version in use from the "group settings" tab when creating a group.

To consider: the teacher and student/parents assess different aspects of the "teaching-learning" process. This is the reason why each version of classroomcoach360 includes a specific evaluation questionnaire for the teacher and one for the student/parent. The role of the user (teacher or student/parent) is defined when creating the user's account and cannot be modified later on.

Very important: classroomcoach360 can also be used under the configuration of a group consisting only of students/tutors without the inclusion of a teacher. Under these circumstances the same criteria are evaluated as in the full version, but given the absence of the teacher, the consensus criteria cannot be calculated. This version is used when the teacher is not authorized by the school administration to participate and/or when by a common initiative, the students/parents decide to make a follow-up the class. In this case, one user assumes the role of group admin and generates the invitations for the participants. Whenever possible, we highly

recommend the participation of the teacher in order to allow a full 360-type analysis of the classroom dynamics.

Elementary and secondary school levels

As stated on the first page of this guide, the scope of classroomcoach360 covers both elementary/primary and secondary school levels. These two versions assess specific criteria of these two levels. For example, the secondary school questionnaire assesses factors such as *"workload"* and *"coordination with teachers"* that are not assessed in the elementary school version. A second aspect differentiates these two versions. In the elementary school version, parents/tutors are who use the webapp for obvious reasons of complexity of use and conceptual understanding of the questions while secondary school level students have 100% autonomy in the use of the webapp.

Recap versions table

Version	Elementary/Primary level		Secondary level	
Students/(parents/tutors)	@t home	@t school	@t home	@t school
Teachers	@t home	@t school	@t home	@t school

Case study

Hereafter we present a chimerical case study of a 360° assessment that is typically carried out by the app, that is, confronting student/parent's perceptions with that of the teacher.

First of all, it must be remembered that the app acts as a thermometer, that is, its primary function is to detect obstacles in the learning-teaching process, providing an updated profile of the student's and the group's dynamics. It is up to the teacher to deepen each obstacle that he thinks deserves to be addressed in order to optimize his teaching process. The traffic lights code that guide the numerical results act as warning signals that act as the kickoff of the teacher's in depth analytical work.

As for the student/parent, the diagnosis of classroomcoach360 helps them to quickly become aware of possible academic and/or behavioral difficulties that they are going through to eventually contact the teacher to amend them before they take greater proportions.

Finally, for the teacher and the student/parent, the consensus scores illustrate the degree of shared vision they have on the dynamics of the classroom.
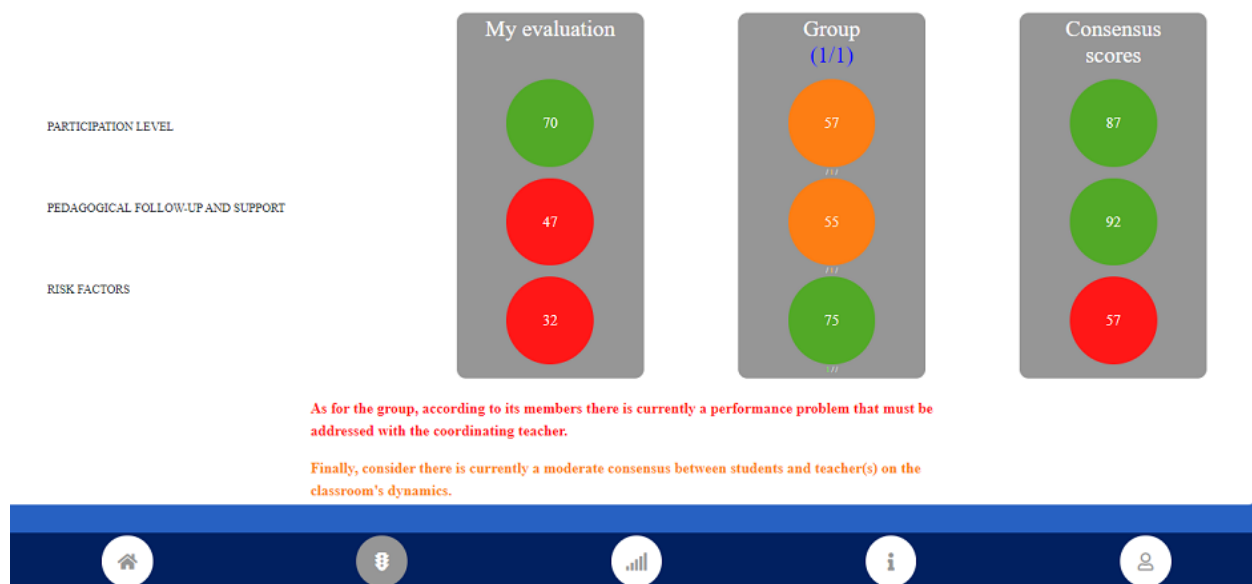
Level: elementary; Mode: online learning; **Profile: student/parent**; Period: week 3; N: 1 (1 participant)
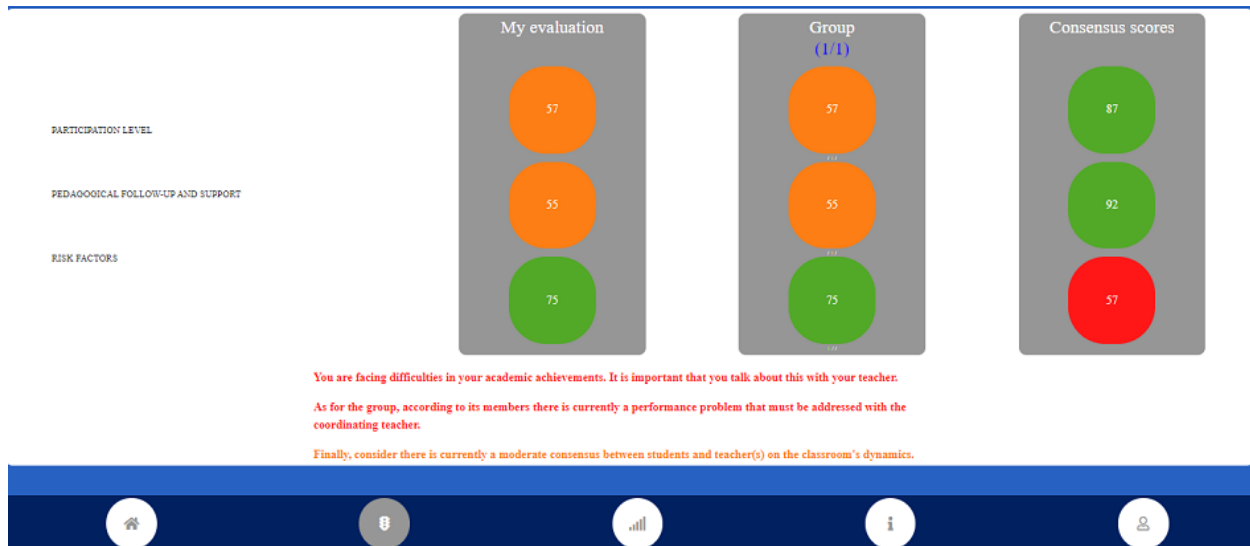
From this profile, the following pop out elements can be seen: the assessment indicates that the student is facing certain obstacles with his learning. He is not participating regularly in online classes nor handing in all of the assignments (the orange light of value 57 is a clear warning sign). This pattern is not necessarily due to an adaptation problem with the online learning model since the *"risk factors"* indicator (connectivity, adaptation, etc.) shows an acceptable value (75, green light). Rather, the obstacle and demotivation of the moment experienced by the student could be related to a disconnection with the teacher (55, orange warning light). Perhaps the student feels that he needs a more personalized follow-up of his work, or has there been some disagreement with the teacher? Whatever the real reason, it is affecting his academic performance.

Note: in this example the individual and group values are identical since the group is made up of only one member. The consensus scores are explained below.

My evaluation	Group (1/1)	Consensus scores
PARTICIPATION LEVEL — 70	57	87
PEDAGOGICAL FOLLOW-UP AND SUPPORT — 47	55	92
RISK FACTORS — 32	75	57

As for the group, according to its members there is currently a performance problem that must be addressed with the coordinating teacher.

Finally, consider there is currently a moderate consensus between students and teacher(s) on the classroom's dynamics.

Based on the teacher's assessment, the following is observed. For the teacher, the student's participation in the different learning activities, although not excellent, is still satisfactory (value of 70, green light). However, from his perspective, the two great difficulties faced by his student are related to the level of pedagogical follow-up and risk factors. Firstly, this means that it is difficult for the teacher to build a meaningful bond with the student. In the virtual teaching mode this refers specifically to communication and interaction problems with both the student and his parents. A red light (value 47) should alert the teacher on this matter. Secondly, from the teacher's perspective, a very low score in risk factors (value 32, red light) means that the student is having a poor academic performance and is not reaching the learning objectives proposed for the current period. A profile like this one is a challenge for a teacher who must adapt his strategies to achieve positive changes so that all indicators turn to green.

Consensus scores: at this stage of the analysis it is interesting to investigate whether the teacher's diagnosis is shared or not with that of the student/parent. As indicated in the orange text, the "teacher-student/parent" consensus is moderate. Indeed, despite sharing 2 green lights on two indicators (a sign of a shared vision) there is a red light warning sign. Let's analyze this: despite the small differences observed in the values of *"Participation level"* and *"Pedagogical support and follow-up"* criteria, it can be assumed that for both the teacher and the student/parent there is a coincidence that the student's participation to online activities is not perfect (but neither catastrophic) and that there is an issue involving the "teacher-student" bond

and communication with the student's parents. This explains why the consensus values are high, respectively 87 and 92 (green lights), as both sides agree in the diagnosis of these two indicators. Antagonistically, the discrepancy is related to the *"Risk factors"* indicator. For the teacher, this criterion is mainly linked to low academic performance, while for the student/parent a risk factor is related to the student's adaptation to the online teaching model and the ease of access to connectivity to follow online schooling. So what exactly is happening to the student? Well, what can be deduced based on classroomcoach360 diagnosis is that his low academic performance neither seems to relate to connectivity problems nor to an adaptation to the "home school" model. Comparing both assessments and consensus scores it can be inferred that there is a relational obstacle between the student and the teacher that is affecting his learning.

Despite the limitations of the information provided by the app, we believe that this case analysis shows quite clearly the possibilities that classcoach360 offers to the teacher and the student/parent to diagnose and improve the ongoing "teaching-learning" process.

FAQ and contact

What is classroomcoach360?

It is a collaborative webapp that makes updated diagnosis of the "teaching-learning" process of a classroom.Through users evaluations, the webapp performs situational and differential profiles (similar to 360° assessments) opposing the teacher's perceptions and those of the students regarding the classroom's dynamics.Once a week, users must answer the questionnaire. The use of classroomcoach does not exceed 3 minutes.

What are the versions of classroomcoach360?

The webapp is designed to be used in different learning situations (homeschooling and face-to-face), school levels (primary/elementary, secondary) and types of users (teachers, students/parents). When creating a group, the admin defines these parameters of his classroom.

How to create a group?

Either a teacher or a student/parent can create and manage a group. From the "User" tab, the "Create a group" option / button must be selected. The user can then define the different attributes of his group: group name, level (elementary, secondary), modality (homeschooling or face-to-face), and generate the invitation link which allows joining the group. As a user you can belong to several groups at the same time.

Very important: for the elementary / primary level the groups has to be created by the teacher. If a parent creates the elementary/primary level group, the teacher will not be able to join the group later on.

Check https://sites.google.com/view/classroomcoach360 to view a tutorial in how to create a group

Do identities remain secret?

Yes. One of the premises of classroomcoach360 is the confidentiality of identities. These are never shared, neither with the group administrator nor with a third person. Identity protection reduces response bias in users.

How to interpret the results?

Classroomcoach360 provides quantitative information expressed numerically and also qualitative according to the color code logic of the red light model. The understanding and interpretation of the different indicators is intuitive. Check the "info.php" page and https://sites.google.com/view/classroomcoach360

Is Classroomcoach360 free?

Yes. The app is entirely free.Inside the app there is a link that allows you to make a donation. Your small contribution allows us to continue updating the app and pay maintenance costs (servers, updates, etc.).

Contact

Do you need to contact us? Write to us at: classroomcoach360@gmail.com