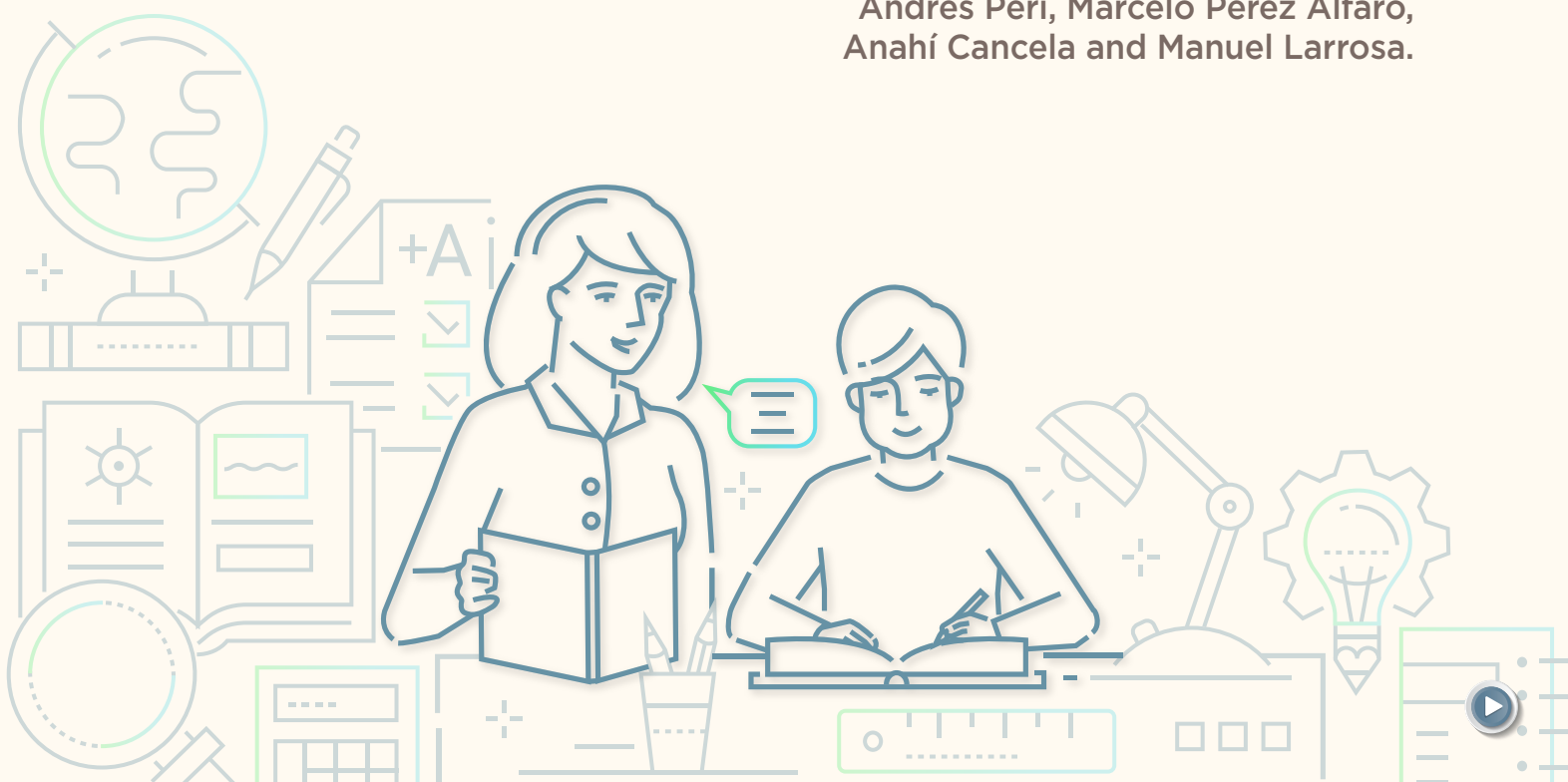


Active classrooms: the role of the teacher as activator in student engagement

Juan Soca, Carlos Libisch,
Andrés Peri, Marcelo Perez Alfaro,
Anahí Cancela and Manuel Larrosa.





Keywords:

Teacher as activator - Active pedagogies - Deep learning - Equity

Authors:

Juan Soca, Carlos Libisch, Andrés Peri, Marcelo Pérez Alfaro, Anahí Cancela and Manuel Larrosa.

Copyright © [2020] Inter-American Development Bank. This work is licensed under a Creative Commons IGO 3.0 Attribution-NonCommercial-NoDerivatives (CC-IGO BY-NC-ND 3.0 IGO) license (<http://creativecommons.org/licenses/by-nc-nd/3.0/igo/legalcode>) and may be reproduced with attribution to the IDB and for any non-commercial purpose. No derivative work is allowed.

Any dispute related to the use of the works of the IDB that cannot be settled amicably shall be submitted to arbitration pursuant to the UNCITRAL rules. The use of the IDB's name for any purpose other than for attribution, and the use of IDB's logo shall be subject to a separate written license agreement between the IDB and the user and is not authorized as part of this CC-IGO license.

Note that link provided above includes additional terms and conditions of the license.

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the Inter-American Development Bank, its Board of Directors, or the countries they represent.





Table of contents

1 Introduction	4
2 Objectives	7
3 Methodological strategy	9
4 Results	14
5 Concluding remarks	20
References	22



1 Introduction

High rates of exclusion and, especially, low rates of completion of secondary education are one of the main problems facing educational systems in Latin America and the Caribbean. In 2018, on average, only 62% of 20-24 year-old Latin Americans had completed their upper secondary education. Uruguay, in particular, had a graduation rate of 41% or, in other words, 20 percentage points below the regional average (INEEd, 2020).

Although educational exclusion is a complex and multi-causal phenomenon, student boredom and demotivation are among the main factors associated with educational dropout, particularly at the secondary school level¹ (Fullan, McEachen, Quinn, 2019; Pereyras, 2018). This, in turn, affects the motivation of teachers, who can feel frustrated by not achieving the expected results, producing educational systems that expel both students and teachers (Fullan, McEachen, Quinn, 2019; Pereyras, 2018).

Internationally, there is consensus in education economics about the central role played in the learning process by teachers and their interactions with students (Busso et al., 2017). The evidence generated over the past ten years shows that, once children start school, no other factor is as important for learning as the quality of their teachers (Bruns and Luque, 2014). Having effective teachers, who are able to promote their students' learning, is, therefore, fundamental for improving the quality of education in the region and overcoming inequities in educational outcomes (Elacqua et al., 2018).² Policies on the selection, training, support and motivation of teachers are key for achieving a transformation of teaching in the region through which to generate the expected learning and skills in students³ (Busso et al., 2017; Elacqua et al., 2018).

1. According to Uruguay's Continuous Survey of Households (ECH, 2012-2013), in all the age groups reported, the principal reason for not completing secondary education is the students' lack of interest in the education received, even when reasons for starting work, economic problems or pregnancy (of the student or partner) are taken into account.

2. See Elacqua et al. (2018) for a systematization of the policies and best practices implemented by the region's different countries to attract, select and develop effective teachers.

3. The Education Division of the Inter-American Development Bank (IDB) has carried out a range of research into teacher quality, collaborating with the region's governments in identifying policies and programs to improve the effectiveness of teachers in Latin America and the Caribbean. This research has analyzed a broad range of issues and interventions related to teachers' role such as the prestige of the teaching profession, innovative teaching methods and mechanisms for selecting and allocating teachers.



In this context, the New Pedagogies for Deep Learning (NPDL) network⁴ aims to promote deep learning as a means of interesting students and teachers in the learning process through the acquisition of the global competencies required for the challenges of the world of today and the future. It focuses on four key elements: pedagogical practices based on active pedagogies, learning partnerships, learning environments, and leveraging digital (Fullan et al., 2019; Pereyras, 2018).

The activities of Uruguay's Ceibal Plan which the Bank supports include training for principals and teachers, both in person and online and at different levels (induction and specialization), in schools that are part of the NPDL network, along with the provision of skills assessment tools, collaboration and exchange on the Ceibal platforms and the monitoring and assessment of deep learning activities carried out by teachers.⁵ This evaluation is also part of the Bank's joint activities with the NPDL network.

The development of active pedagogical practices that promote deep learning calls for a specific teacher role, referred to as the teacher as activator. This concept, coined by the professor and researcher John Hattie, assumes that teachers have a dynamic and interactive role with students in that they learn from each other. Teachers as activators seek to be a provocateur who stimulates students' natural curiosity, mobilizing learning that can be stimulating and interesting. Teachers as activators are expected to define clear learning goals through dynamic interaction with their students in order to establish achievement criteria and develop skills jointly. They are also expected to promote reflection and offer timely feedback, fostering metacognition processes through which students participate actively in their own learning (Fullan et al., 2019).

The NPDL approach understands that teachers as activators and the implementation of deep learning awaken students' interest through active methods that involve them in their own learning (Hattie, 2012). In addition, it hypothesizes that these strategies will be especially effective with the most unmotivated students and will, therefore, tend to reduce the inequality that exists in the educational system. This differential effect is referred to as the equity hypothesis (Fullan and Gallagher, 2017).

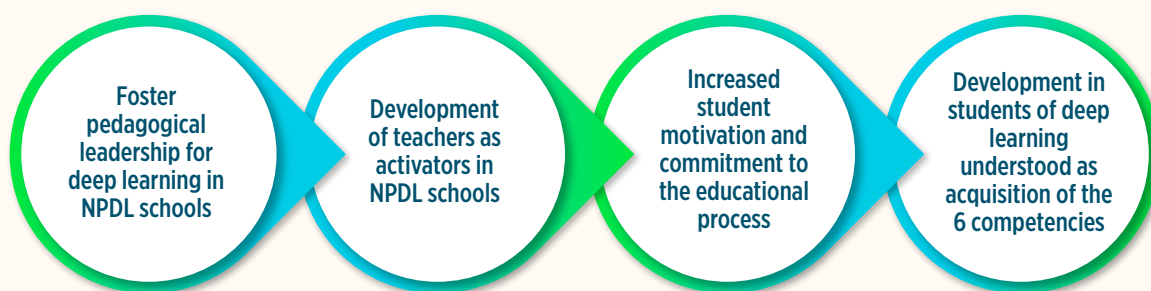
4. New Pedagogies for Deep Learning (NPDL) is an international network of collaboration that is incorporating new pedagogies in eight countries across different continents through a common framework of action and research (<https://www.npdl.global/>). Through its National Public Education Administration (ANEP) and the Ceibal Plan, Uruguay participates in this network, referred to in Spanish as the Red Global de Aprendizaje Profundo (RGA) (<https://redglobal.edu.uy>).

5. UR-L1141: Generación C: Consolidando Innovaciones Educativas para las Habilidades y Competencias del Siglo XXI. <https://www.iadb.org/es/project/UR-L1141>.



The logical framework of the NPDL approach (Figure 1) asserts at a general level that the promotion in schools of pedagogical leadership geared to deep learning will lead to the development of teachers as activators who are able to foster greater student motivation and commitment to the educational process. An orientation towards deep learning involves changes in educational practices based on the development of new learning environments, learning partnerships, active educational practices, and an emphasis on formative assessment. This process permits the development of deep learning in students who, therefore, achieve greater competence in the skills defined by the NPDL approach.

FIGURE 1 • Causal logic framework



This research aims to contribute to the understanding of the effect that work with active pedagogies through teachers as activators has on the commitment or engagement of secondary school students. To this end, an exercise was carried out to operationalize the practices that, we understand, the teacher as activator develops in our context. In the educational field, student engagement has a complex and multidimensional nature, centered on students' level of commitment, participation, interest, level of identification and emotional ties with the school or the subject being taught (Tomás et al., 2016). Many studies have consistently shown strong positive associations between engagement and academic achievement, as well as negative relationships with dropout (Manzuoli, Pineda-Báez, Vargas Sánchez, 2018; Wang and Fredericks, 2014).



2 Objectives

Research objective

In its general objective, this research seeks to learn about the level of association between, on the one hand, teachers' work and, specifically, the role of the teacher as activator from a deep learning perspective and, on the other, the engagement of first-year lower secondary students in Uruguay, taking the examples of biology, physical sciences, geography and history.

Research questions:

1. What is the association (relation) between the work of the teacher as activator from a deep learning perspective and students' commitment to or engagement with the subject?
2. Is the relationship observed between the work of the teacher as activator from a deep learning perspective and students' commitment to or engagement with the subject greater among students with a higher risk of educational failure (equity hypothesis)?

Target population and intervention strategies

The universe for this study comprised all the 33 schools in Uruguay belonging to the NPDN network, distributed across 13 of the country's 19 departments, all of which are located in urban areas.

Regarding the intervention, these schools have been participating actively in the project for more than a year, with a good level of motivation in relation to the proposition, and have the support of a mentor.⁶ During the year, the schools have worked together with the NPDN team on a number of occasions. The tools defined for the intervention, therefore, included meetings with teachers, support on the ground, teacher self-evaluation, virtual courses and learning progressions. The definition of each of the interventions implemented is shown in the table below (Table 1).

6. Under the NPDN approach, the mentor is an educator who provides in-person support for the project's implementation in a school.



TABLE 1 • Intervention tools

INTERVENTION TOOL/ STRATEGY	DEFINITION
MEETINGS	In-person meetings, held in half days with the aim of fostering professional learning communities. They had different conceptual focuses centering on: New pedagogies for deep learning - Design of deep learning activities - Formative assessment.
SUPPORT ON THE GROUND	Team of mentors who visit the schools. It also includes project referents (PR), who visit and work especially with teacher training centers.
VIRTUAL COURSES	Virtual courses (between 120 and 240 hours) for teachers, principals and educators in general to familiarize them with the core teaching competencies for work from a deep learning perspective.
TEACHER SELF-EVALUATION	Online self-application tool to guide teachers in self-identification of strengths and areas for improvement in the implementation and development of teaching work from a deep learning perspective.
LEARNING PROGRESSIONS	The NPDL learning progressions categorize the 6 competencies in different dimensions. Each dimension presents a way of seeing and understanding these competencies from a perspective of work in the classroom. The content of the learning progressions was drawn up using different definitions and theoretical concepts, processed by the NPDL team and based on universal descriptors that can be adapted to different contexts.

Source: Compiled by authors.

Out of the 33 schools invited to take part in the evaluation, 24 agreed to do so voluntarily, representing a total of 564 first-year lower secondary students. The study considered students and teachers of history, geography, biology and physical sciences, which were chosen because of the similarity of the time allotted to these subjects (between three and four hours per week) and as representing two social and two science subjects



3 Methodological strategy

In a bid to answer the research questions, an observational study was proposed. Studies of this type examine the associations between the defined variables of interest: in this case, the relationship between the teacher as activator and students' engagement with the educational proposition. From among the different designs for observational studies, a panel-type design was selected since the same teachers and students were measured at two moments in time (the middle and end of the school year). The study involved the evaluation of teaching practices from a student standpoint since the students themselves are the source of information about their motivation and commitment and for describing teaching practices in the different subjects. Given that the study took the first year of lower secondary schooling, one of the main changes with respect to primary education was students' interaction with different teachers over the course of the school year and the resulting different educational experiences. Each teacher offers students a particular perspective on a subject and the teaching and learning processes that await them in this new challenge. Each educational proposition can, therefore, be understood as a different "treatment" that generates different results. Figure 2 shows the evaluation process and the different stages in the implementation of the study.

FIGURE 2. **Implementation of the research project, 2019**



Independent variable

The independent variable is the teaching work and, specifically, the role of the teacher as activator from a deep learning perspective within the NPDL framework. To evaluate this variable, questionnaires were designed to gather information about teachers' practices as seen by their students, who were asked if they perceived the different characteristics expected of a teacher as activator. The operationalization of this variable is described in detail in the section below about the questionnaire.



Dependent variable

Students' engagement with the subject was defined as the dependent variable. Engagement, which is manifested in feelings of connection, commitment and involvement with the subject, is a multidimensional construct that reflects the commitment or involvement of an individual in a task and can be subdivided into three dimensions: behavioral, emotional and cognitive (Fredricks and McCloskey, 2010). This study considered the behavioral and emotional dimensions. In education, engagement has been shown to be a robust predictor of dropout and academic performance (Fredricks, Blumenfeld, Paris, 2004). Specifically, the behavioral dimension has been found to have the greatest influence on dropout (Wang and Fredericks, 2014).

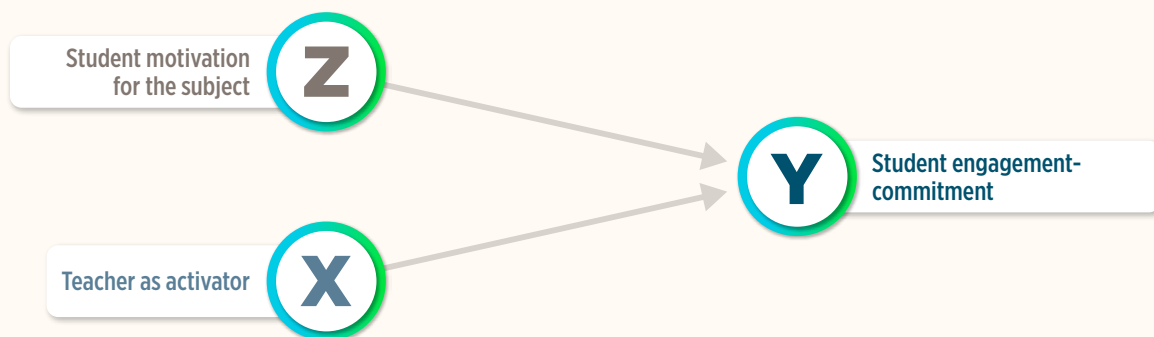
Moderating variables

To test the equity hypothesis, which asserts that teachers as activators generate greater motivation and engagement in students who are traditionally less motivated, students' intrinsic motivation was measured on a scale and the relationship with engagement was analyzed to see if it was higher among those with lower intrinsic motivation.

Relations between factors or variables

At a general level, this research design seeks to investigate the relationship between teachers as activators and students' engagement with the subject. As shown in Figure 3, these relationships are moderated according to students' level of intrinsic motivation for the subject.

FIGURE 3 • Relations between variables





The information obtained from the first and second measurements was used to perform analysis of variance (ANOVA) of one and two cross-sectional and longitudinal factors, comparing the two measurements (henceforward, T0 and T1) in such a way as to answer the research questions. Factor analyses of the results obtained in the questionnaires were also carried out to determine the dimensions of the different measurement instruments used.

Questionnaires

The construction of the questionnaires was a key aspect of the research project and took as reference a number of instruments validated for the target population and, as far as possible, similar contexts. The NPDL approach's own tools were also considered, including teacher self-evaluation⁷ where the central skills for the development of what we understand as teachers as activators are described.

Scales of student questionnaires

- **Students' intrinsic motivation** is defined as participation in a task as an end in itself, for reasons such as the challenge, curiosity or mastery of a task or subject (Pintrich and De Groot, 1990). It is measured using an already tested scale from Uruguay's National Evaluation of Educational Achievements (Aristas)⁸, which comprises four items that refer to liking and motivation for learning.
- **Students' engagement** with the subjects is defined, unlike motivation, in terms of action or as behavioral, affective and cognitive manifestations of motivation. Validation analysis showed that the best measurement option is the one that preserves the affective and behavioral sub-dimensions of engagement, which are measured through six items (Fredricks, McColskey, Meli, Mordica, Montrosse and Mooney, 2011).
- **Teacher as activator.** The design of a scale to capture the notion of teachers as activators as an independent variable is one of the most interesting exercises and results of this study and warrants specific analysis beyond that presented here. Operationalizing this concept is crucial and a number of questions were drawn up to describe the teaching practices linked to what different authors refer to as teachers as activators, captured from the student standpoint and tailored to the Uruguayan context. Their design began with a review of the related literature before going on to define the practices involved in the classroom work of a teacher as activator. Starting with the four major dimensions of the NPDL conceptual framework (learning partnerships, learning environments, pedagogical practices and

7. <https://redglobal.edu.uy/storage/app/media/pdf/RGA%20-%20Autoevaluacion%20docente%202020.pdf>

8. All the non-cognitive elements in the Aristas primary evaluation have been released, along with the database, and are for public use. The dictionaries of variables are available at <https://www.ineed.edu.uy/nuestro-trabajo/bases-de-datos/388-aristas-2017-tercero-y-sexto-de-educacion-primaria.html>.



leveraging digital), these were then subdivided into ten sub-dimensions, related to feedback, reciprocal teaching, metacognition and active pedagogical practices, with an emphasis on the protagonism and voice of the students. The definition of goals and achievement criteria is also important so that students are active participants in their own learning. On the understanding that practices associated with the teacher as activator should be linked to each other, factorial validity analysis of the first data obtained during the first measurement (T0) was carried out. Based on this, it was decided that, for the association analyses, a one-dimensional teacher as activator index would be used, comprising 25 items grouped into six sub-dimensions: communication of learning goals and achievement criteria; openness to student participation in the classroom (student voice); the student-teacher bond dimension as a sub-dimension of classroom climate; project work; feedback processes; and the use of digital tools.

Validation of scales

Different cognitive interviews⁹ were conducted with first-year secondary students of Uruguay's Secondary Education Council and Technical-Professional Education Council in order to identify cognitive problems and rephrase instructions, items or categories of answers where problems of comprehension were detected.

Application of questionnaires

The questionnaires were applied to first-year secondary students at NPDL schools, as shown in Figure 2, and were self-administered, using the Learning Evaluation System (SEA)¹⁰ platform, following coordination between the research team and the schools. In the questionnaires, students were asked about the practices of their history, biology, physical sciences and geography teachers in order to obtain an approximation to the measurement of the practices that configure a teacher as activator. They also included questions related to the students' engagement with these subjects and their intrinsic motivation for studying.

Given the number of items that each student had to answer in the questionnaire, it was decided that each student would answer questions about two of the four teachers of the selected subjects. In other words, the sample was fragmented at the level of the school group. This strategy facilitated management of the problem of cognitive saturation, which can lead to increases in biases due to the halo and acquiescence effects (De las Cuevas and González, 1992). This implied the use of two models of questionnaire: in model 1, students answered about their biology and history teachers

9. The cognitive interviews were used to test the questionnaires in terms of comprehension of the vocabulary and the questions and their organization in order to increase the validity of the question-and-answer process, particularly given the self-administered nature of the questionnaires (Smith and Molina, 2011).

10. The Learning Evaluation System (SEA) was designed and developed by the Department of Learning Evaluation of the Division of Research, Evaluation and Statistics (DIEE) of ANEP's Sectorial Directorate of Educational Planning (<https://sea.anep.edu.uy/>).



and, in model 2, about their physical sciences and geography teachers. The questionnaires were organized into three large blocks: questions about the teacher of the subject, questions about engagement and intrinsic motivation for the subject, and socio-demographic questions. En cuanto a la estructura del cuestionario, se organiza en tres grandes bloques: preguntas sobre el docente de la asignatura, preguntas sobre *engagement* y motivación intrínseca hacia la asignatura, y preguntas de tipo sociodemográficas.



4 Results

The results are presented below, organized in terms of the research questions.

1. What is the association (relation) between the work of the teacher as activator from a deep learning perspective and students' commitment to or engagement with the subject?

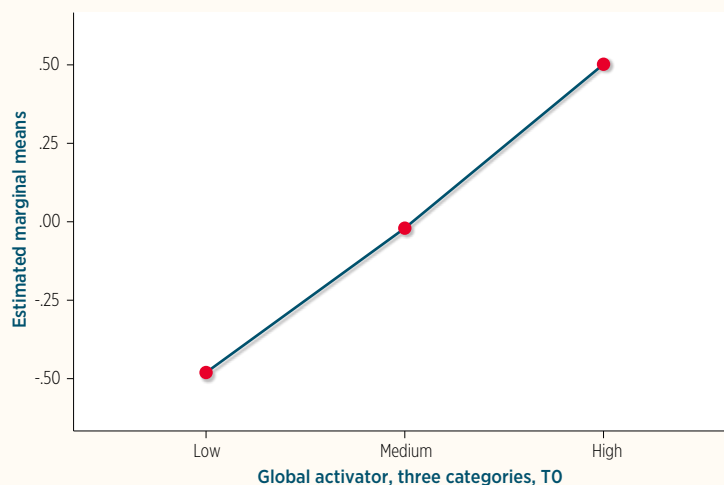
A significant positive association was found between the teaching practices that characterize teachers as activators in the NPDL framework and students' commitment to or engagement with their subjects in the first year of secondary education.¹¹ The graphs below (Figures 4 and 5) show the estimated marginal means for engagement at each of the measurements (T0 and T1) for the different levels of teachers as activators, classified as low, medium and high.¹²

11. The indices (including the engagement index) are standardized since they are constructed using variables with scales of different types. Their standardization means they have an average of 0 and a standard deviation of 1. Negative values are, therefore, found below the average value but do not imply negative engagement on the part of these students, merely that it is below the average of the standardized index.

12. The teacher as activator index synthesizes the teaching practices captured in its six sub-indices. The weight of each sub-index is determined by its factor loading in the overall index. For classification into low, medium or high, the general index was divided into tertiles. In general terms, a less activating teacher is one who, in the opinion of students, has less frequently implemented the practices defined as characteristic of teachers as activators or, in other words, has communicated the objectives of each class less frequently, been less prone to student participation in class, has used project work less frequently and has used the available digital tools to a lesser extent.

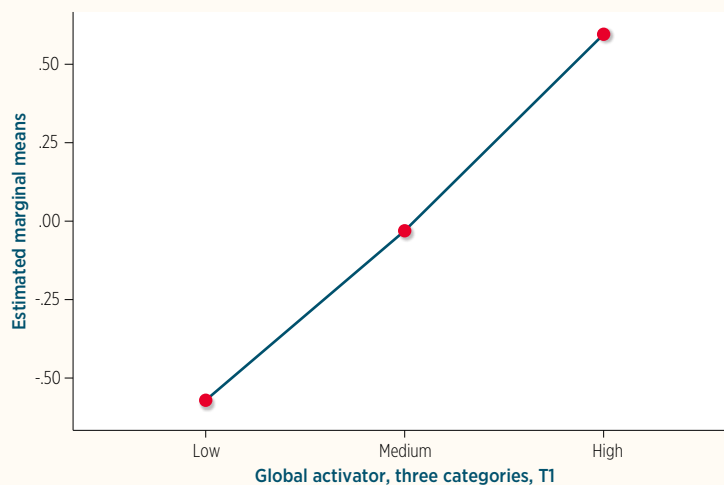


FIGURE 4 • T0 graph



Source: Compiled by authors.

FIGURE 5 • T1 graph



Source: Compiled by authors.

The two graphs show a clear association between the teacher as activator and students' commitment or engagement: the more inclined the teacher is to use active practices (or, in other words, is more activator), the greater the commitment students show to the subject. Given that engagement is measured using a standardized index with an average of 0 and a standard deviation of 1, the effect on the marginal means of engagement, according to the level of the teacher as activator, is around half a standard deviation.



Out of the ten sub-dimensions of the concept of teachers as activators defined in this study, six have a significant relationship with student engagement at both measurements (T0 and T1).¹³ Figure 6 shows the correlations between these sub-dimensions and engagement for the two measurements.

FIGURE 6 • Correlation between sub-dimensions of teacher as activator and engagement



Source: Compiled by authors.

Note: Bivariate Pearson correlation of between -1 and 1 where -1 represents a perfect negative correlation, 0 no correlation and 1 a perfect positive correlation. In the figure, correlations significant to 0.05 are reported.

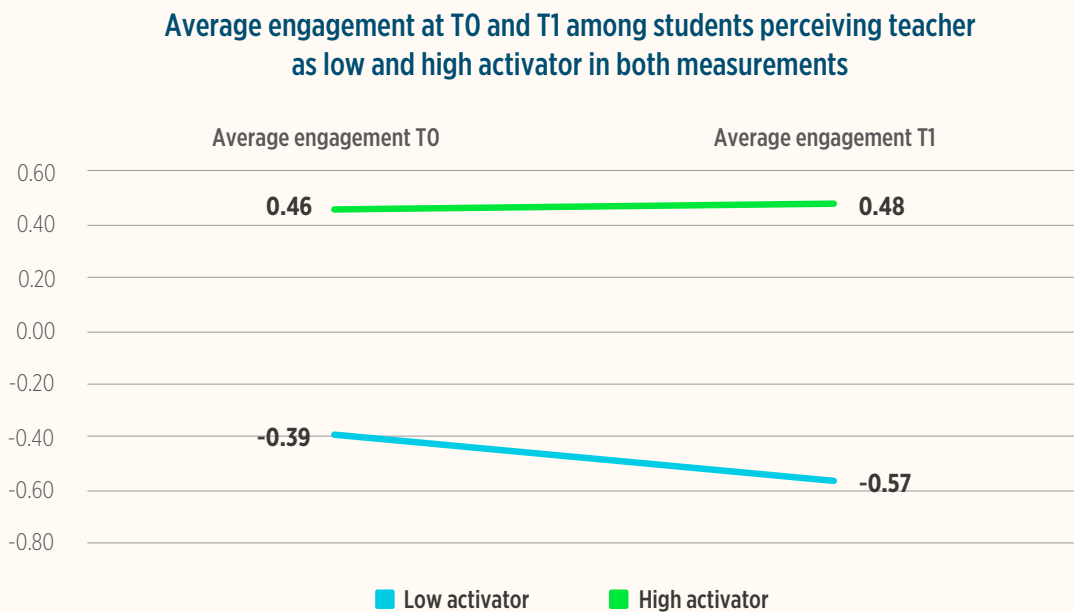
As can be seen in Figure 6, six of the sub-dimensions analyzed have a positive and statistically significant relationship with student engagement. Although higher correlations were found in the second measurement (T1) than in the first one, the ranking of correlations (from highest to lowest) does not vary between one measurement and the other.

13. The four dimensions in which a significant association was not found were evaluation of students' needs, skills and interests; promotion of collaborative work; work outside the classroom; and self and co-evaluation processes.



Longitudinal analysis was used to gain a better understanding of the relationship between engagement and the teacher as activator at both moments in time (T0 and T1). It shows how these variables evolved between the two measurements, revealing a small but significant drop¹⁴ in students' average global engagement between the middle and the end of the school year. The figure shows the differences in engagement averages for the different levels of teachers as activators, indicating that engagement is greater among those students who value their teachers' implementation of more practices in line with the teacher as activator model. Clearly, teachers as activators manage to maintain the level of motivation for the subject throughout the second semester of the year while engagement with the subject falls among students who perceive their teachers as less activating.

FIGURE 7 • Longitudinal analysis of differences in engagement by level of teacher as activator



Source: Compiled by authors.

14. A t-test of means differences was applied and showed a statistically significant drop in the average of the global engagement index of around a tenth of a standard deviation.



2. Does the relationship observed between the work of the teacher as activator from a deep learning perspective and students' commitment to or engagement with the subject differ between students with a greater or lesser risk of educational failure (equity hypothesis)?

Figures 8 and 9 show the variance analysis of the relationship between the teacher as activator and student engagement according to their level of intrinsic motivation for the two measurements performed. Intrinsic motivation is the variable used to evaluate the equity hypothesis, according to which teachers as activators have a more positive effect on less motivated students. As already discussed in the previous question, engagement rises for all levels of motivation when students perceive the teacher as an activator. In Figure 8, the blue line (low motivation) indicates that, when a teacher is a high activator, students with low intrinsic motivation achieve an engagement that is almost on a par with that of students with medium intrinsic motivation. Similarly, in Figure 9, the green line (medium motivation) indicates that, when teachers are high activators, these students have engagement scores similar to those of students with high motivation.

To sum up, an effect is observed at all levels. There is a slight narrowing of the engagement gap between more and less motivated students, but it is not statistically significant. This is more noticeable at T0 than T1. It should be noted that this lack of statistical significance may be due to the number of cases studied since, when adjusting a two-factor model, the sample is divided into nine subsets as a result of the interaction of the three categories of each of the factors (intrinsic motivation and teacher as activator). In any case, the equity hypothesis cannot be verified with this data set. A greater use of active practices (teacher as activator) is positively associated with student engagement for all levels of intrinsic motivation, not only among those less committed to the subject (lower intrinsic motivation).



FIGURE 8 • Relation between levels of teacher as activator and student engagement by level of intrinsic motivation at T0

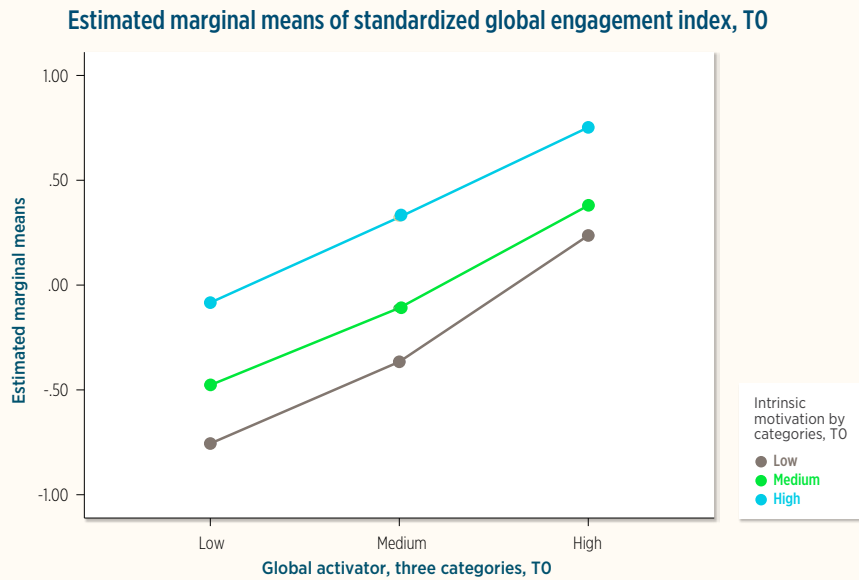
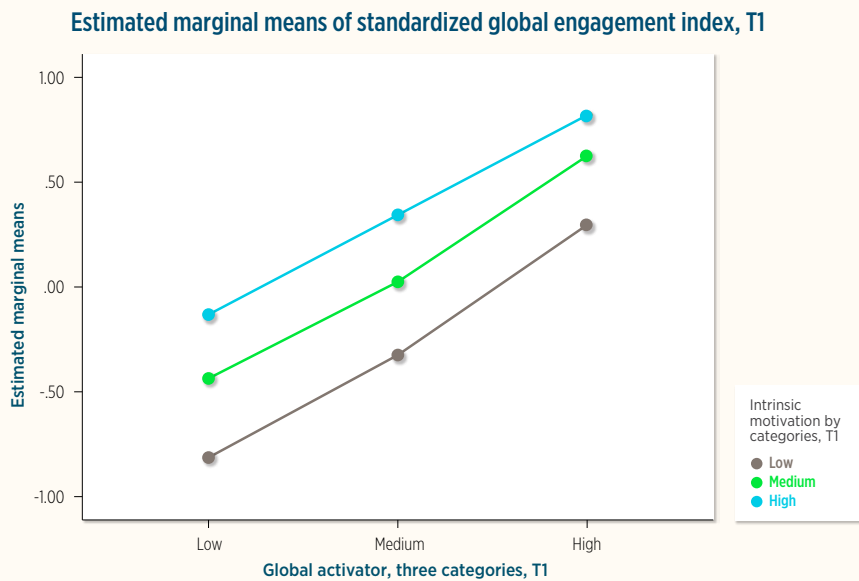


FIGURE 9 • Relation between levels of teacher as activator and student engagement by level of intrinsic motivation at T1





5 Concluding remarks

One of the novel contributions of this study is the development of an instrument through which to operationalize the concept of teacher as activator and to analyze and quantify the practices associated with it.

Based on psychometric analysis, the study shows how the practices associated with teachers as activators, observed from the standpoint of students and placed in the context of education in Uruguay, are related. It concludes that there are a series of practices that characterize a teaching profile: giving students a voice, communicating goals and achievement criteria, forming good affective ties, providing timely feedback, fostering active practices and integrating technologies into the classroom.

In the cross-sectional and longitudinal correlation analysis, it is evident how these teaching practices are potentially effective in motivating and engaging students with the subject in question. The subjects considered in this study have common aspects in terms of the time allotted to them and it is significant that this positive correlation was found in the case of all four subjects analyzed.

Regarding the longitudinal analysis of these variables, two aspects stand out. First, there is a global drop in engagement between the middle and end of the school year, which may be due to student fatigue and exhaustion as the year advances. Few studies have provided evidence as to how student engagement evolves over the course of the year so this finding is important and indicates an avenue for further research.

Second, a moderating role is observed in relation to the presence of a teacher as activator who manages to maintain engagement. A teacher who is a high activator attenuates the drop in student engagement between both periods of time. The importance of this finding lies in the strong associations already demonstrated between engagement and student performance and dropout from the educational system (Wang and Fredericks, 2014; Manzuoli, Pineda-Báez, and Vargas 2018).

Among the practices that make a teacher an activator, the most significant and powerful practices in terms of achieving student engagement are those related to student voice and the teacher-student bond. The latest National Evaluation of Educational Achievements published by the National Institute of Educational Evaluation (INEEd) showed a positive correlation between student voice and students' results in both reading and mathematics, even when controlling for schools' socioeconomic and cultural level (INEEd, 2020). Under the NPDL approach, the voice of the students and co-design with them play a central role.



Analysis of the equity hypothesis proposed by Fullan, according to which teachers as activators are fundamentally effective with the most unmotivated students, reveals a positive trend in that it is the most unmotivated students who benefit the most from their teaching practices. However, there were no statistically significant differences between the two types of students. It should be noted that this could be related to the number of cases and it will be necessary to replicate the study with a larger sample.

The teacher as activator, in the terms in which this concept has been defined, emphasizes the teacher as a figure who motivates and guides students. These are characteristics that, as many authors assert, are and will be essential aspects of the teaching role in the future of education (Fullan et al., 2019). This study empirically contrasts how these practices are presented in the classroom (observed from the student standpoint) with their relationship with students' commitment to the subject. It provides clues and indications for reinforcing the practices implemented today by teachers in secondary schools in Uruguay (CES-CETP) that are also part of the NPDL network. These practices are central to the proposition that the NPDL has been developing since 2014.

Solutions in education are not simple. However, to continue advancing in the construction of better educational systems, it is essential to generate knowledge and evidence about the relevance of new pedagogies. It may seem obvious that the more active practices are, the greater students' commitment to the subject will be, but the construction of rigorous evidence about this relationship is essential.

The results of this study show that, the closer a teacher is to the model of teacher as activator, the greater student engagement will be. In addition, in contrast to the assertion of the "equity hypothesis" that teachers as activators have a greater effect among students with low motivation, the results of this study indicate that the relationship between teachers as activators and student engagement holds for all levels of intrinsic student motivation. In this sense, it is very important that the teacher as activator has an effect on commitment to the subject among students with low intrinsic motivation since they are the most likely to drop out from the educational system.



References

- Bruns, B. and Luque, J. (2014). *Docentes excelentes: Cómo mejorar el aprendizaje en América Latina y el Caribe*. Washington, D.C.: World Bank.
- Busso, M., J. Cristia, D. Hincapié, J. Messina and L. Ripani. 2017. *Aprender Mejor: Políticas Públicas para el Desarrollo de Habilidades*. Washington D.C.: IDB.
- De las Cuevas, C. and González, J.L. (1992) "Autoinformes y respuestas sesgadas", *Anales de Psiquiatría*, vol. 8, N°9, 362-366.
- Elacqua, G., Hincapié, D., Vegas, E., Alfonso, M., Montalva, V., and Paredes, D. (2018). *Profesión: Profesor en América Latina: ¿ Por qué se perdió el prestigio docente y cómo recuperarlo?*. Washington D.C.: *Inter-American Development Bank*.
- Fredricks, J.A., Blumenfeld, P.C., Paris, A.H. (2004) "School Engagement: Potential of the Concept, State of Evidence", in *Review of Educational Research*, Spring 2004, Vol.74, No. 1, pp. 59-109.
- Fredricks, J.A. and McColskey, W. (2010) "The Measurement of Student Engagement: A Comparative Analysis of Various Methods and Student Self-report instruments", Christenson, et.al., (eds.) (2012) *Handbook of Research on Student Engagement*. Springer Science+Business Media.
- Fredricks, J., McColskey, W., Meli, J., Mordica, J., Montrosse, B., and Mooney, K. (2011). "Measuring student engagement in upper elementary through high school: a description of 21 instruments", *Issues & Answers Report, REL 2011-No. 098*, Department of Education, Washington, D.C.
- Fullan, M. and Gallagher, M.J. (2017) *Transforming Systems, Deep Learning and the Equity Hypothesis*. Learning Policy Institute. Stanford University.
- Fullan, M., McEachen, J., Quinn, J. (2019) *Aprendizaje Profundo. Involucra al mundo para cambiar al mundo*. Plan Ceibal - ANEP - NPD. Montevideo.
- Generación C: consolidando innovaciones educativas para las habilidades y competencias del siglo xxi, (UR-L1141)
- Hattie, J. (2012) *Visible Learning for teachers. Maximizing impact on learning*. Routledge. New York.
- INEEd (2020). *Aristas 2018. Informe de resultados de tercero de educación media*. Montevideo: INEEEd.



INEEd (2020). Reporte del Mirador Educativo 6. 40 años de egreso de la educación media en Uruguay. Montevideo: INEEEd.

Manzuoli, C. Pineda-Baez, C. Sanchez, A. (2019) “*School Engagement for Avoiding Dropout in Middle School Education*”, *International Education Studies*,” 12(5) 35--48.
<https://doi.org/10.5539/ies.v12n5p35>

Pereyras, A. (2018) “Un marco para la gestión del cambio”, in *Pensar fuera de la caja*. Annual publication of the Red Global de Aprendizajes. Montevideo.

Pintrich, P. and De Groot, E. (1990) “Motivational and Self-Regulated Learning Components of Classroom Academic Performance”, *Journal of Educational Psychology*, 82(1), 33 - 40.

Tomas, M., Gutierrez, M., Sancho, P., Chireac, S., Romero, I.(2016). *El compromiso escolar (school engagement) de los adolescentes: medida de sus dimensiones*. Enseñanza & Teaching, 34, 1-2016, 119-135.

Wang, M. T., and Fredricks, J. A. (2014). The reciprocal links between school engagement, youth problem behaviors, and school dropout during adolescence. *Child Development*, 85(2), 722-37. <https://doi.org/10.1111/cdev.12138>



RED GLOBAL de APRENDIZAJES

New Pedagogies for Deep Learning (NPDL) is an international network of collaboration that is incorporating new pedagogies in eight countries across different continents through a common framework of action and research

<https://www.npdl.global/>

Through its National Public Education Administration (ANEP) and the Ceibal Plan, Uruguay participates in this network, referred to in Spanish as the Red Global de Aprendizaje Profundo (RGA)

<https://redglobal.edu.uy>

