ABSTRACT
A considerable amount of national and international evidence indicates that leadership and management teams, and especially school principals, can generate better teaching conditions. Thus, administrators have created economic incentive policies to improve, stimulate, and motivate teaching staff. Hence, the purpose of this study is to analyze three economic incentive policies designed by school leadership and management teams within three private-subsidized schools in Chile. The study implemented a qualitative methodology of case studies compared through the analysis of 6 in-depth interviews. The results show that management teams do not design plans but rather economic incentive policies in a collaborative way dependent on organizational goals and deficiencies. This study contributes to the understanding of economic incentives from the perspective of those who design and make decisions. This issue has not been addressed enough in the national and international literature.

Keywords: Teacher performance, Economic incentives, Educational leadership, Data decision-making.

1. INTRODUCTION
Education is a key issue for the socio-economic development of countries. Quality of schools is an element that concerns governments, and for this it is necessary to tackle multiple factors of the educational system. However, teachers' practices continue to be a primary factor that has a direct impact on the quality of student learning which is not unknown to governments (Darling-Hammond, 2010; Van den Berg, 2002). Likewise, the motivation, commitment, and abilities that teachers develop through a reflective practice are key to improving and changing the results of student learnings (Elmore, 2000; Schon, 1987). Thus, teachers’ behavior emerges as a key factor that has a high impact on the quality of education and, therefore, it becomes necessary that governments allocate resources to this matter.

School leadership is the second key factor affecting the quality of student learning outcomes (Brock and Grady, 2012; Bush, 2015; Elmore, 2000; Hargreaves and Fink, 2006). Leadership means influencing and mobilizing others to reach individual and collective achievements, and this concept—as both a process and a practice—has an indirect impact on student learning (Hargreaves and Shirley, 2012; Leithwood, Harris and Hopkins, 2008). In practice, it implies that school principals and their teams must generate the necessary and specific conditions for teachers to develop their teaching practices in a context that fosters the learning process (Bush, 2015; Gronn, 2000; Harris, 2008; Harris, 2009). Both teachers and school principals play an essential role in school quality improvement, especially in contexts of socio-cultural deprivation (Bellei, Muñoz, Pérez and Raczynski, 2004).

Working as a team is a necessity and a challenge within schools. Both teachers and school principals need to exchange, dialogue, and experiment with new forms of learning that encourages a collaborative culture (Ávalos, Cavada, Pardo and Sotomayor, 2010; Darling-Hammond, Meyerson, La Pointe and Orr, 2010; Tubin and Pinyan-Weiss, 2015). For collaborative learning to be effective, it is necessary to carry out individual tasks and responsibilities. Despite the importance of organizational goals, success will be connected to the sum of individual work. In that scenario, the individual performance and the collaborative efforts will be constantly
finding each other. Nowadays, collaborative work as an assumption installed within the Chilean schools (Ávalos, Cavada, Pardo and Sotomayor, 2010).

However, the previous assumption presents a paradoxical situation. On the one hand, public policies keep promoting collaborative work, but on the other hand, teachers and school principals tend to follow a lonely path in the performance of their role (Day and Gu, 2012). Multiplicity of tasks, time management, and the search for improvements configure collaborative work as a time-consuming practice. National and international empirical evidence portrays the best schools are those that manage to build work teams (Leithwood, Harris and Hopkins, 2008; Gronn, 2000; Horn and Marfan, 2012). Consequently, a distance between reality and the desired is originated (Bellei, Muñoz, Pérez and Raczynski, 2004).

Traditionally, the teaching profession has been scarcely valued by society, and even more so in Latin American countries (Fanfani, 2005). This lack of appreciation has been reflected in the working conditions of teachers, specifically in relation to wages (Acuna, 2015; Bellei, Muñoz, Pérez and Raczynski, 2004; Day and Gu, 2012). In the local scenario, several responses have been given to improve the social evaluation of teaching. For example; the improvement of salaries, the incrementation of admission requirements for educational programs, the evaluation of the quality of universities and institutions that teach pedagogies, among other elements. Nevertheless, the neoliberal logic has rendered the economic incentives as a viable alternative to improving the working conditions of the teachers within schools (Mizala and Romaguera, 2002).

In the Chilean context, schools belonging to the public sector have little autonomy to allocate resources for economic incentives to teachers (Mizala and Torche, 2012). Therefore, the empirical evidence on these cases is scarce. On the other hand, in the subsidized and private sector, this is a common practice (Acuña, 2015). Hence, the purpose of this paper is to analyze three economic incentive policies designed by leadership and school management teams within three subsidized schools in Chile. The aim of this study is not to assess the impact of economic incentive policies, but rather to understand the basis of decision-making teams when designing economic incentive plans for their teaching staff. The focus will be on leadership teams as decision makers.

The relevance of this study is that it presents empirical cases which provide specific practices regarding the economic incentive policies within Chilean schools. The aforementioned contributes to the awareness of a topic that has not been sufficiently addressed in the national and international literature. The conclusions and implications of this study may guide public policies at national level in two key aspects: firstly, guide the management teams through the decision-making processes by professional training programs focused on improvements; and secondly, the identification of possible trends and variables that managers consider motivating and engaging for their teaching staff.

2. INDIVIDUAL AND GROUP ECONOMIC INCENTIVES

Economic incentives have been studied from different fields and perspectives. For example, in the business field there is considerable research on the effects of economic incentives on individual and collective performance under production parameters and indicators, while in the educational field the studies, mainly empirical, are somewhat scarce and do not present conclusive results (Lazear, 2003; Tirivayi, Van den Brink and Groot, 2013).

An interesting debate is being held within international literature concerning the way of addressing the economic incentive between individuals and groups (Lavy, 2009). Tirivayi, Van den Brink and Groot (2013) point out that, regardless the incentives modality, researchers have sought evidence on the prediction and effectiveness of the power of incentives to improve both the learning process and professional teacher performance rather than effectiveness and issues that come along with the modality. However, the modality is key for measuring the impact incentives have on schools, reason why it becomes necessary to explore this further.

Springer, Pane, Le, McCaffrey, Burns, Hamilton, and Stecher (2010) conducted an empirical study in Tennessee, United States that involved 297 mathematics teachers in 5th, 6th and 7th grade. All of the teachers received economic incentives for their individual performance. This 3-year study found that generally, incentives do not cause significant changes on standardized test scores within the mathematics area. As a result, it was not possible
to evidence changes in student learning practices and routines or in teachers’ professional performances. In contrast, Winters, Ritter, Barnett, and Greene (2007) found that individual incentives, based on a sample of five schools in Arkansas, generated positive effects on scores obtained in standardized tests in mathematics, but not in the case of language. Atkinson, Burgess, Croxson, Gregg, Propper, Slater and Wilson (2009) concluded that, based on 18 schools with a sample pool of 145 teachers receiving individual incentives; math scores increased by approximately 40% in standardized tests. However, the teachers’ practices did not change, that is why it is not possible to conclude that individual incentives generate improvements in learning and teaching practices (Atkinson et al, 2009). Moreover, empirical evidence is rather ambiguous, which makes it difficult to use consistent trends (Tirivayi, Van den Brink and Groot, 2013).

Group economic incentives are another issue that has also been studied in the literature. Muralidharan and Sundararaman (2011) carried out an investigation in primary schools in India - including more than 600 teachers- using two control groups. The main research finding was that between 2005 and 2006 the scores obtained by students belonging to the group of teachers who had received group incentives increased by 0.16% of standard deviation when compared to the results of national tests taken in previous years. Similarly, Glewwe, Ilias, and Kremer (2010) found in schools in Kenya a 0.14% standard deviation in scores regarding teachers who did not receive group incentives over a period of 3 years. However, these authors did not find any significant discrepancies between the decrease of work absenteeism, changes in pedagogical practices or in teacher commitment. In sum, the studies concluded that group incentives given to teachers have a higher effect in increasing the results in standardized tests only when compared with individual incentives (Glewwe, Ilias, and Kremer, 2010; Muralidharan and Sundararaman, 2011; Tirivayi, Van Den Brink and Groot, 2013).

The success or failure of individual and group economic incentives mainly depends on the context (Vegas, 2005). Although there are no patterns applicable to all contexts, there is empirical evidence which indicates that group incentives in teachers have more positive effects in the contexts of developing countries than in developed ones (Dixit, 2012; Glewwe, Ilias, and Kremer, 2010). In the Chilean case, a recent study carried out by Acuña (2015) analyzes the teaching culture from a bureaucratic and official perspective with the aim of understanding - from the participants themselves- the implications of the economic incentives in Chilean schools. The main contribution of this study was the identification of main areas that encourage teacher professionalism, despite the fact that teachers themselves did not identify individual economic incentives positively. It is believed this happened since teachers criticized incentives by categorizing them as a way of "compensating" the low salary they receive (Acuña, 2015; Mizala and Romaguera, 2002). As a result, there was resistance and a minor effect on changing pedagogical practices (Acuña, 2015).

3. METHODOLOGY

The following study aims to analyze three economic incentive policies designed by school leadership and management teams within three subsidized schools in Chile. For this purpose, a qualitative methodology comprised of comparative case analysis was implemented, which is fundamentally interpretive (Jürgen, 2011). Drew from the methodological design, it is important to recognize the comparison criteria that respond to an interpretive paradigm (Creswell, 2007). These comparison criteria are categories that represent selective categorization units (Eisenhardt and Graebner, 2007). The criteria are: incentive focus, who makes decisions, who can apply to the incentive, and incentive frequency. These four comparative units were examined in a semi-structured interview (Creswell, 2007).

3.1 DATA COLLECTION

In the initial stage three in-depth interviews were conducted with each school principal, and in the second phase, three interviews were conducted with each leadership team, which included a curriculum coordinator (terminology in Spanish: jefe de unidad técnica pedagógica), orientator and an pastoral care leader (only in one case, the interview was held with the principal and 2 curriculum coordinators). This methodological decision was taken mainly because in the first instance data was collected in an exploratory manner in order to contextualize the phenomenon, while in the second phase data was gathered with a focus on possible relations between the principals’ speech and the leadership teams (Creswell, 2007).
All interviews were recorded, with an average duration of 47 minutes, and then transcribed. Each of the interviews were analyzed according to the categories previously designed. Moreover, as we worked with emerging ideas based on the comparison criteria, the comparison criteria are defined previously and not on the basis of emerging categories in accordance with a pragmatic discourse analysis (Creswell, 2007). The latter was done through an independent manual axial coding, where each researcher independently coded different responses according to the comparison criteria, which were later compared for consensus. Emerging ideas were discarded whenever it was not possible to establish consensus (Creswell, 2007).

4. RESULTS

School leadership involves establishing organizational conditions for teachers and students to learn significantly, improving their practices and performance respectively (Hargreaves and Shirley, 2012). For this purpose, it becomes necessary to make complex and multidimensional decisions frequently. This implies that principals must make decisions, sometimes individually and sometimes with the support and involvement of others. This is because it has been portrayed that the process of collaborative decision-making enhances the likelihood of better decisions than when performed individually which implies distributed leadership (Harris, 2009).

Leadership teams, and specifically school principals, must make decisions involving other actors. The idea is to ensure that decisions impact positively on culture and school performance (Supovitz, and Tognatta, 2013). It comes from the principle that economic incentives are designed with the idea of motivating, engaging and stimulating teachers to achieve better results in students’ academic products and a better performance in their own practice.

The cases to be studied are presented in Table 1. The table includes context data about the schools as well as a description of the incentive, and the comparison criteria understood as the focus, who decides the "winners" of the incentive, participants, and incentive frequency.

Table 1. Economic incentives system

<table>
<thead>
<tr>
<th>School level</th>
<th>Case A</th>
<th>Case B</th>
<th>Case C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>631</td>
<td>801</td>
<td>433</td>
</tr>
<tr>
<td>SIMCE</td>
<td>286</td>
<td>261</td>
<td>255</td>
</tr>
<tr>
<td>Teaching staff</td>
<td>36</td>
<td>44</td>
<td>23</td>
</tr>
<tr>
<td>Description of economic incentive</td>
<td>It compares the results obtained in the previous year SIMCE(^1) with the present year one. If the scores increase, independent of the quantity, the incentive is delivered.</td>
<td>Each teacher department grouped by the subject they teach must decide who obtains the incentive through the use of several criteria defined by themselves. The criteria should be described and presented to the school board through a guideline.</td>
<td>A rubric that includes indicators of professional responsibilities such as attendance, medical leave, administrative permissions, among others.</td>
</tr>
<tr>
<td>Focus</td>
<td>Results</td>
<td>Miscellaneous</td>
<td>Teachers’ responsibilities</td>
</tr>
<tr>
<td>Who decides?</td>
<td>Leadership Team</td>
<td>Teachers</td>
<td>Leadership Team</td>
</tr>
<tr>
<td>Who can achieve the incentive?</td>
<td>Teachers who teach on mathematics, language, history, and natural sciences (courses included in SIMCE)</td>
<td>Teaching staff(^2)</td>
<td>Teaching staff(^2)</td>
</tr>
<tr>
<td>Frequency</td>
<td>Anual</td>
<td>Anual</td>
<td>Annual</td>
</tr>
</tbody>
</table>

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\(^1\) The SIMCE (In Spanish: Sistema de Medición de la Calidad de la Educación) (Education Quality Measurement System) is a battery of national student-testing tests used to measure learnings annually in the main subjects in grades 2nd, 4th, 6th and 10th (language, mathematics, and science, plus foreign a language: English).
5. DATA ANALYSIS AND DISCUSSION

5.1 WHAT IS THE ECONOMIC INCENTIVE?

In the cases described, there are three types of incentives that differ from one another. The first incentive compares the results obtained in the previous year SIMCE with the present year one. If the score increases the incentive is delivered. One principal points out:

"I always think that only some teachers are able choose. For example, what about teachers of arts and music? We are also following the model that we criticize so much, that math and language are the only important courses, but in a way, the answer was that they receive more pressure than other teachers and they are constantly being evaluated, which is why the incentive is more justified". School principal, case A.

In this sense, the critical point in the design of this incentive is not directly related to the criterion, ie SIMCE, but rather to who can be creditors of the incentive. Therefore, it is thought to use a compensatory measure for all the work, stress and demands that are covered by the SIMCE teachers. The curriculum coordinator of this school points out:

"SIMCE teachers work too much, they are always there, they are super motivated. We consider it is fair to reward them. In addition, the other teachers understood it well, they know that stress and everything generated by the SIMCE is taken away by them".

In the second case, the critical design node lies in the criteria for deciding the incentive creditors. Unlike the first case, a point to be discussed is the possibility of self-evaluation of one's professional performance. That is, the possibility for the incentive to become a moment to develop group conscience and to reflect. This incentive is that each teacher department, grouped by the subject they teach, must decide who should be the incentive holder through the use of criteria previously defined by themselves.

"We wanted them to decide for themselves who would receive the money. If they would provide the same criteria, if they wanted to get away, or maybe one year it would be someone’s turn, and the next year it would be someone else's. We do not mind because in truth what matters is they begin to work as a group, but it could not be anything either, so we finally decided to present a suggestion on the teacher's advice later on how they chose " Curriculum coordinator, case B.

The incentive criteria defined by each of the departments must be described and presented through a guideline to the school council. This decision was made to hold the teachers themselves responsible for their decisions and because it implies thinking about the decision-making process that involves the participants. Hence, expressed in words of the curriculum coordinator:

"Because we are too indulgent with them, almost paternalistic, we tell them everything. Here we try to develop more autonomy and a sense of collective work in them, that's why we did not want to evaluate them and give the incentive, but we did" Curriculum coordinator case B.

The third case does exactly what it is desired to be avoided by the management team of the second case. The management team decides the incentive creditor from a rubric that includes indicators of professional responsibilities such as attendance, medical leave, administrative permissions, among others.

"There are other instances to evaluate teachers’ performance. We observe the classroom, the results of students, etc. We wanted to reward those teachers who did not fail to keep their shirts on.” School principal case C.

In sum, the incentives differ in their design. There is not a single way to create the incentives. However, it has been highlighted that a conflicting point in the design is related to what is going to be "rewarded" and who will participate in the incentive decision-making process.
5.2 FOCUS´S INCENTIVE

From the interviews it was possible to categorize incentives obtaining three outcomes. In the first case, supported by the results, it was identified a focus on accountability. In case B, a miscellaneous focus in practical terms does not have clarity regarding the criteria. Therefore, one group of teachers may be result-oriented, another group might focus on personal relationships, and another one on professional responsibilities. Finally, the third case focuses on the teachers’ professional responsibilities.

In general, the three cases studied show that the schools’ goals are aligned with the incentives. A weakness that must be strengthened is the current focus of goals, that is, on improvement. The incentive is thought to be a strategy and/or support that can help achieving organizational goals proposed at organizational level.

"Look, here at the school it is very difficult for teachers to work together as a team because in truth the relationships between them are not the best, so we want to improve that through the incentive. We think it can be a good starting point." Curriculum Coordinator case B.

"As a school we always want to improve, and SIMCE scores have improved year after year. We wanted to reward that too, so that teachers are more motivated, children learn more, and everything has a positive impact. One thing leads to the other" School principal case A.

"One of the goals this year is to reduce absenteeism at work, teachers’ irresponsibility, because we have had several absents due to medical leave which impact on the normal development of classes. Sometimes even I have to cover for the them or even send the students home because there are no teachers. It has become a serious problem for us" Curriculum coordinator case C.

In all three cases it is possible to establish some concerns for the achievement of the proposed goals. Therefore, there is an interesting relationship between institutional goals and economic incentives. It seems that management teams directly connect aspects of organizational improvements with the incentive. Moreover, it is inferred that the expected result is not only to reward teachers but also to rely on an indirect impact on student learning. This implies that the participating leadership teams of this study recognise a relational triangle between incentive, school goals, and student learning outcomes. However, none of the cases mentioned indicates a measure of the impact of incentives based on the achievement of school goals and on the academic performance of students. In practical terms, this points out the lack of mechanisms and/or instruments for gathering information in order to systematize the impact of the incentive. As portrayed in the literature, leadership teams cannot conclude on the impact of economic incentives on their respective organizations (Tiryani, Van den Brink and Groot, 2013). This is key when thinking about incentive design.

A strategic management plan should not only consider the elements of the plan but also elements that allow the evaluation and systematization of the impact of the incentive (Glewwe, Ilias and Kremer, 2010). In this way, the three cases studied designed the incentive without reaching an incentive evaluation stage. In sum, management teams design the incentive without an incentive plan. This conceptual distinction is elemental to improving the practical installation of incentives in schools.

5.3 WHO CAN APPLY FOR INCENTIVES?

A key question in incentive design is who can apply for economic incentives (Dixit, 2002). In the three cases studied, only teachers could be creditors. That is, leadership teams consider that the economic incentive is a way of rewarding the teaching staff (Acuña, 2015). Economically, it is necessary to establish incentives so that the teachers are able to be motivated in their work, a belief that directly associates the incentive with teachers’ motivation.

"We think that teachers can be more motivated with the incentive ". School principal case B.

"When you have something to work for, specially if it is money, obviously you get more motivated, that is what we have seen". Curriculum coordinator case A.
Encouragement and motivation seem to be understood as a cause and effect relationship. In contrast, there is no allusion to a relationship between incentive and a change or improvement in teaching practices. Therefore, it is possible to indicate that leadership teams have a vision focused on the motivational dimension more than on teacher commitment and capacities. The same is connected to the ability of school principals to evaluate the change in teaching practices. It seems that the focus of the incentive is not in the change of pedagogic practices but in a more immediate and short-term effect. That is, the incentive can be categorized more as a motivational stimulus than an actor for change and/or improvement on teachers.

"We used the incentive because teachers complete thousands of tasks here at the school, we feel it is a way to compensate them for what they do" Inspector case A

A more conflictive point was found in case A. In this school, only some teachers could apply for receiving the incentive, that is, only teachers of mathematics, language, social sciences and natural sciences. According to the curriculum coordinator this decision was made because:

"The idea was always for the teachers to receive it, but we decided the ones with SIMCE subjects would be benefited, because in truth we feel that they have more pressure than the others".

It is possible to notice again that the incentive is seen as a compensatory measure (Acuña, 2015). This option generates divisions among the same members of the management team. For some it is necessary to include others, but for others the incentive is associated with standardized tests, therefore, it is more difficult to include others in this process.

"So..I do not know, english, physical education, arts, etc. cannot apply because they have no evidence in terms of the SIMCE test. It is true they are harder to include because we do not have these indicators" Inspector case A.

"We discussed that point a lot but I think it is fair that way since if they have good SIMCE scores, the entire school improves in terms of more resources, prestige, etc." School principal case A.

5.4 FREQUENCY
In the three cases studied the frequency of the incentive is annual. In simple terms, the incentive is granted once a year. There are two reasons for sustaining the incentive with annual frequency. The first one is the limitation of resources and the second one is the time it takes to gather evidence to grant the stimuli. Draw from this, the incentive is not incorporated in the daily practices of the leadership teams. It is visualized as an external task that complicates the principal’s work and involves additional demands, while not considering time in the multiple tasks that must be performed. Usually, they are visualized as evaluative stages at the end of the school year.

"It is annual, once a year, What worried us most was that the person would repeat from one year to another, and you know it was repeated. We as a team hesitate to give it again because several things may happen such as people saying the delivery of the incentive is fixed, or someone else may say that one person is always the favorite, but in truth that person is a teacher who never fails, then we surprised as a team, we gave an element of surprise (laughs) .... And we gave it back to you, the same teacher, and you know it was good because the same teacher was surprised she said she did not think....they were going to give it again " School principal case C.

This case portrays a situation that can occur when designing incentives. It is important to consider the effects that could be generated when the same teacher becomes creditor of the incentive. In the case of this school, it is thought that an intelligent decision was made because it gives confidence and validity to the criteria developed by the leadership team. This allowed to legitimize the election and give a clear signal to the other teachers that there are no subjective elements but rather evidences and practices. Thus, the leadership team shows it improves their self-image.

6. CONCLUSIONS AND IMPLICACIONES
The purpose of this study was to analyze three economic incentive policies designed by school leadership teams within three Chilean subsidized schools. There was an attempt to understand what leadership teams are based on
to make decisions when designing economic incentives instead of evaluating the impact of economic incentive policies on the school, teachers and / or students. Hence, this research explores a field not sufficiently documented that can be investigated further.

A first conclusion that underlies the three cases studied is that it was not possible to observe economic incentive plans. It was only possible to demonstrate policies of economic incentives. A plan obeys a structured design thought in a systemic way passing through stages of identification, analysis, systematization and evaluation, among others steps. In the cases studied, the teaching directors designed incentive policies with instruments to formalize the processes. Again, administrative processes are highlighted rather than pedagogical discussions on the impact of economic incentives. The teaching directors should advance in the design of incentive plans with a clear focus on the possibility of evidence changes in the pedagogical practice of teachers and consequently in student learning outcomes.

The focus of incentive design is diverse and dependent on school goals. Some choose to include teachers in the same focus, others to place it in the learning outcomes and in teacher professional responsibilities. Incentive plans need to advance the analysis of the impact on learning outcomes (Dixit, 2002; Glewwe, Ilias and Kremer, 2010; Lavy, 2009). If there are changes in students' results it is necessary to have valid and reliable information so as to establish possible explanatory causes about that change. However, this was not observed in the cases studied.

A key question that school principals ask about incentives is “what for?”. From the perspective of the three leadership teams, economic incentives are programmed to increase teacher motivation, improve students' learning, and financially compensate for the teachers’ effort and the pressure they are under. Despite this, it was not possible to identify challenging questions by leadership teams on how to know when a plan is well executed. Self-evaluation and monitoring of what is implemented is a pending task for school leadership teams. This becomes a key leadership practice to identify areas for improvement that needs to be addressed in the future (Harris, 2009; Supovitz and Tognatta, 2013).

In the construction of the incentive policies it is visualized that the teams make collaborative-consultative type decisions. This implies that decisions are taken collaboratively within the same leadership team at an internal level where ideas are consulted and raised within this team. However, teachers are not involved in its design. The challenge is to integrate teachers as a key part of the design process. Teachers themselves can open discussion opportunities and critical points on incentive plans as well as impact on their own practices. The idea lies in including the teaching perspective to build a plan with both meaning and experience, so as to create something pertinent and significant for teachers themselves.

Although this study did not investigate the impact on teachers or students based on implementation of economic incentives, it was possible to observe that the school principals and their leadership teams consider that economic incentives are positive stimulus for teachers, and that their main impact is in teacher motivation. However, management teams do not have practical evidence or tools to measure this impact. Consequently, it is necessary to incorporate within the incentive plan instruments that can measure the motivational impact on teachers and on student learning. This opens a new research area that will complement this investigation and other research proposals.

REFERENCES


