



Universidad de
los Andes

Career: Pedagogía Básica Bilingüe
Faculty of Education
Course: Action Research

**Sharing learning goals before starting the lesson and the effects it has
on students' achievement in formative and summative assessments**

Student: Elisa Duke

1. Introduction:

This document aims to describe and present action research and its intervention in a real classroom of a school in Santiago, Chile. The intervention focuses on the effects of sharing learning goals with students at the beginning of each lesson and the effects it has on the performance in summative and formative assessments. Data collection instruments included questionnaires answered by students, class observations and test analysis. Findings showed that learning objectives made students performed in a better way in the minority of the subjects and that they helped students in their learning process, because objectives guided their study and made them understand and know what they were learning and had to achieve in each lesson or unit.

2. Literature Review:

Intervention and context:

The purpose of this action research is to evaluate the effects of sharing learning goals with students at the beginning of each lesson and the effects it has on the performance in summative and formative assessments, the intervention is guided by one question: how letting students know the class objective/s before starting the lesson let students perform better in the formative evaluations and summative evaluations?

This research is implemented in Dunalastair School, located in Santiago de Chile in the commune of Las Condes. This school is a bilingual and private school. The research is done in a 5th grade classroom with 39 students (boys and girls), and three head teachers. The intervention is implemented in the courses of: English, Natural Sciences (project), Social Sciences (project), and Math.

Literature review:

The aim of this section is to provide theoretical support on learning goals and formative and summative assessments.

1.Learning goals:

Learning goals refer to what students should understand and be able to do. Its purpose is not to gain new technical skills, but to learning to be more thoughtful and specific about our purposes and why are they important. Teachers must make goals that are specific and concrete, this way students would not have doubts (Wiggins, Wiggins, & McTighe, 2005).

For being able to create good learning goals we must focus on identifying the desire result, determining acceptable evidence and planning the learning experiences and how you are going to measure if learning goals are being achieved. This way we are going to be able to make students understand how they are going to be evaluated, and at the same time the teacher is going to have a clear view of what their students need to achieve in evaluations (Wiggins, Wiggins, & McTighe, 2005).

Finally, decisions on what goals come next should be based on data emerging from students, the teacher must reflect about the results on evaluations and not only follow the curriculum (Hunter, 1989).

2.Formative and summative assessments:

Formative assessments are used to guide and adapt the lessons. Summative assessments are used to judge the whole students learning. Formative assessment can increase students learning only when teachers clearly communicate the learning goal to the students, collect data from the lessons and use it as evidence to help students understand what they still need to learn (Joan Lucariello, 2015).

Learning goals are related with assessments because if the teacher and the students don't have a clear view of what they need to be able to do they will not be able to complete the

evaluations. That is why researchers say that teachers can improve evaluations when they focus on setting a clear goal (Joan Lucariello, 2015).

On another hand, students' skills, knowledge, and abilities are best measured by formative and summative assessments if they are reliable and valid. This validity can be measured with some questions like: How much of what you taught is being measured? How much of what you not intended to measure is being measured? I am measuring the content, abilities, and skills of my learning objectives? Am I evaluating with a varied type of questions? (Joan Lucariello, 2015)

Three questions can be useful for having assessments aligned with the objectives. The first question is, where am I going? This question is related directly with the class goal, this means the teacher needs to directly communicate the goal to the students and explain their importance. This way students can monitor their progress towards the learning in each formative or summative evaluation, this encourages students to see themselves as the owners of their own learning (Hattie & Yates, 2013). For this question we also must be clear on instructions, the demands of the tasks, and give students clarity about the knowledge to which the task relates and clear performance levels for assignments (Marzano & Pickering, 2005).

The second question is how I am going there? This means if I am achieving or not the criteria and what steps am I going to follow to reach the criteria (Hattie & Yates, 2013).

The third question is, what do I do next? Students will receive constant feedback on their performance in formative and summative assessments, so with that feedback and the learning goals students will develop greater fluency, automaticity, and deeper

understanding in the consolidated learned contents, abilities, and skills (Hattie & Yates, 2013).

3. Methodology:

Action research in education can be defined as the process of studying a school situation to improve the quality of the educative process. Through repeated cycles of planning, observing, and reflecting (Hine, 2013). However, as all type of research, pedagogical action research, requires time, commitment, and resources for being able to carry it out successfully (Norton, 2009).

The main goal of action research in education is to determine ways to enhance the lives of children. According to Hensen, action research, helps teachers develop knowledge related to their classrooms, promotes reflective teaching and thinking, puts teachers in charge of their teaching methods, reinforces the link between practice and student achievement, open teachers toward new ideas and learning new things, and gives teachers ownership of effective practices (Hine, 2013).

This research is based in action research because the very act of teaching involves collecting information to improve instruction. While some teachers may not make a conscious effort to do research, all reflective teachers constantly plan new strategies, watch how students respond to them, and then think about how to make further improvements and being able to apply a new strategy, reflect about it and make further improvements is the goal of this research (Henning, Stone, & Kelly, 2009)

The main question this action research and intervention are looking to answer are: How letting students know the class objective/s before starting the lesson lets students perform better in the formative and summative evaluations?

This intervention and research will be implemented in a fifth grade, more specifically fifth grade C, in where there are 39 students (19 boys and 20 girls) and three head teachers. It is a private bilingual school called Dunalastair located in Santiago, Chile commune Las Condes.

The intervention consists in letting students know about the learning objectives of each lesson before the teacher starts to teach about the content and once the content is all covered evaluate them with a formative or summative evaluation. The intervention will be taking place in the courses of English, Social Science (project), Natural Science (project) and Math.

The methods that will be used to answer the question and collect the data after applying the intervention will be a short questionnaire that students will answer with two different types of questions (multiple choice and open questions). The second method will be document analysis of the formative and summative evaluations carried out in each class. And the last method will be class observations they will be done all Tuesdays, Wednesdays, and Thursdays from May until the middle of June of 2022 on the lesson of Math, English, Social Sciences (project), and Natural Sciences (project), and the questions that will guide these observations are: How do students perform in formative assessment of the lesson? Do students react to the objectives of the lesson? Do they ask questions? Do they use the objectives in any way during the class? Do they make reference to the objectives during the class?

The multiple-choice answers of the questionnaires were tabulated, and the open-ended questions were summarized and tabulated in an excel page. For test analysis all the grades of the students were tabulated in an excel page and were tagged with different colors depending on the intervals of grades, green from 6,0 to 7, red from 4,0 to 5,9 and yellow from 1,0 to 3,9. Finally, class observations were summarized and coded with different colors by different type of information that emerged.

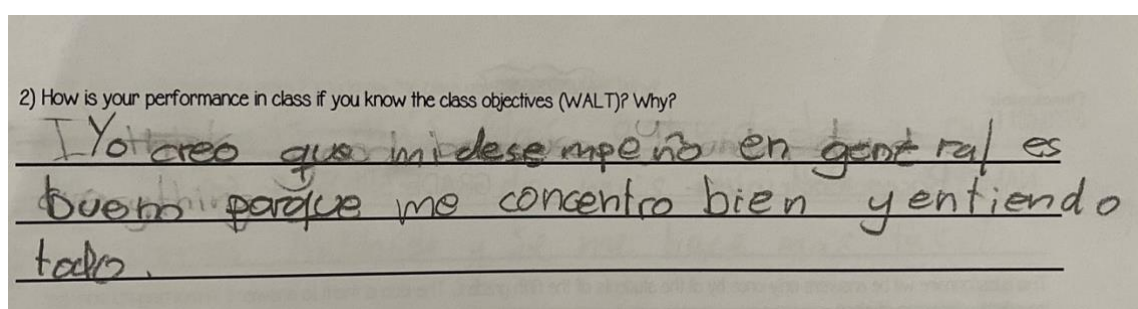
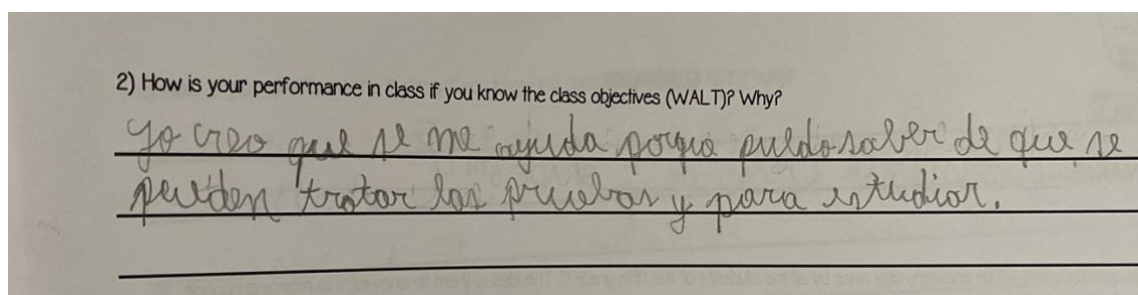
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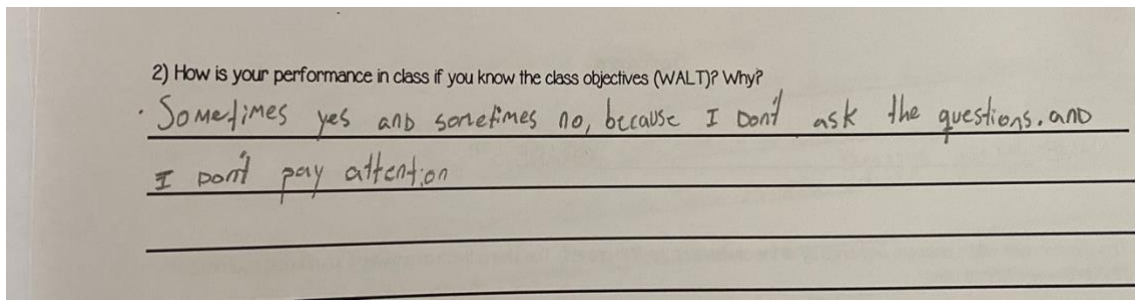
In the analysis of all the data collected, I found three main categories.

- Students' performance in assessments:

Questionnaires answers by students showed that for 53% of the students learning objectives were useful for helping to do better in the different assessments, because with them they were able to understand and know what they had to study and what content they were learning in each lesson. But also, a big number of students answered that they had a better performance not only because of learning objectives, but because they pay attention and followed instructions in class.

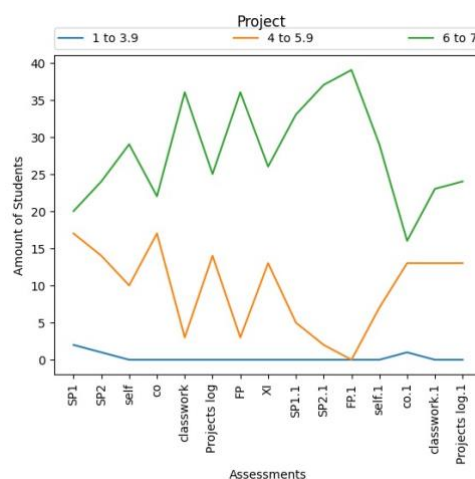
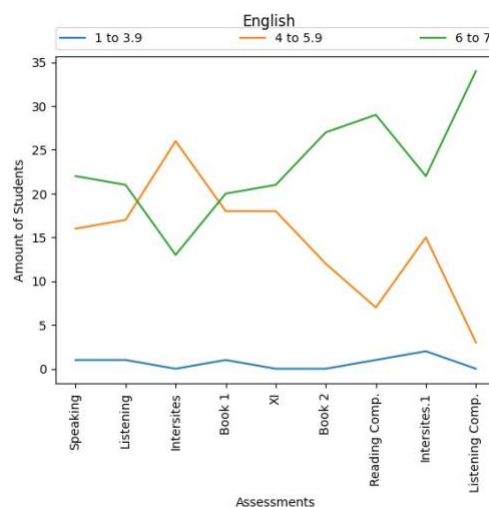
Here are some real answers of students:

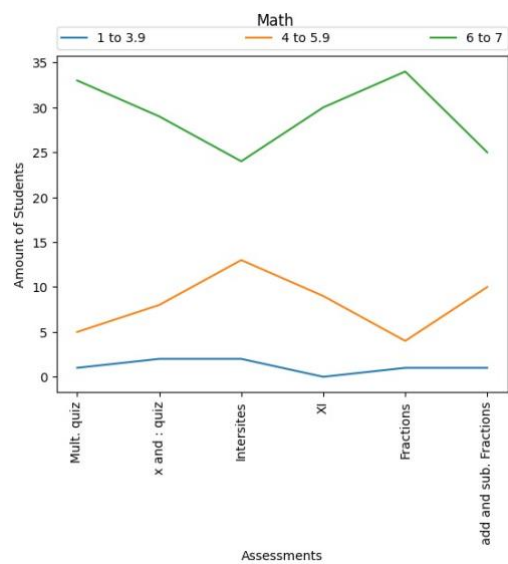
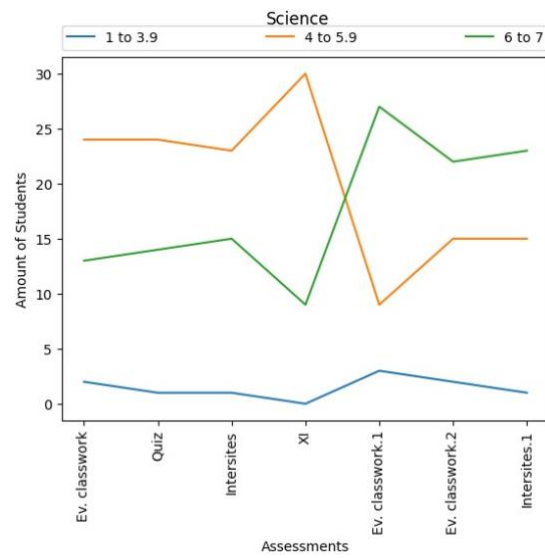
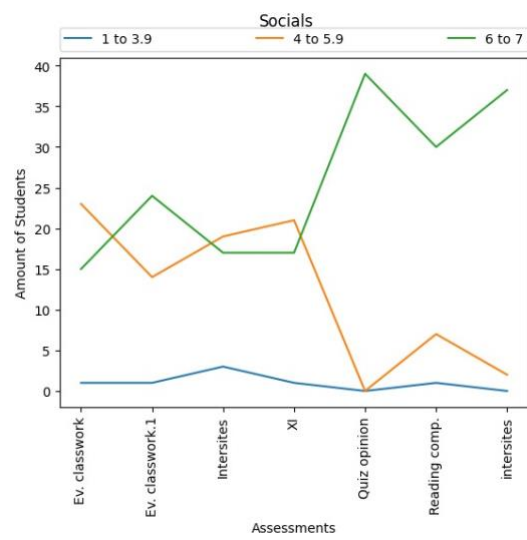




With the class observations I can conclude that students performed good if they know the class objective, but they do not trust their capabilities, so that is why in the questionnaires they say that they performed in a medium level most of the time. They have so high expectations of themselves that only one bad grade for them is to perform bad in the whole subject during the whole semester.

Finally, with the tests analysis it showed that student's performance in almost every subject increased in a considerable way once the intervention started taking place, as we can see in the following graphs:





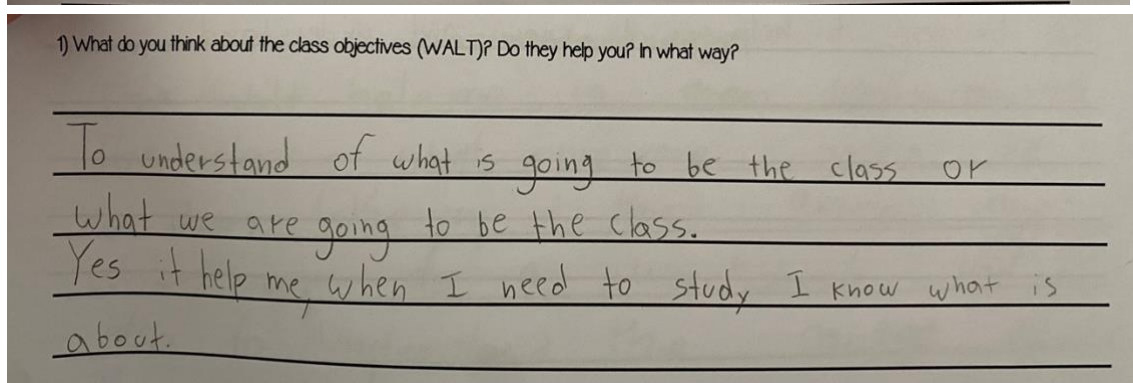
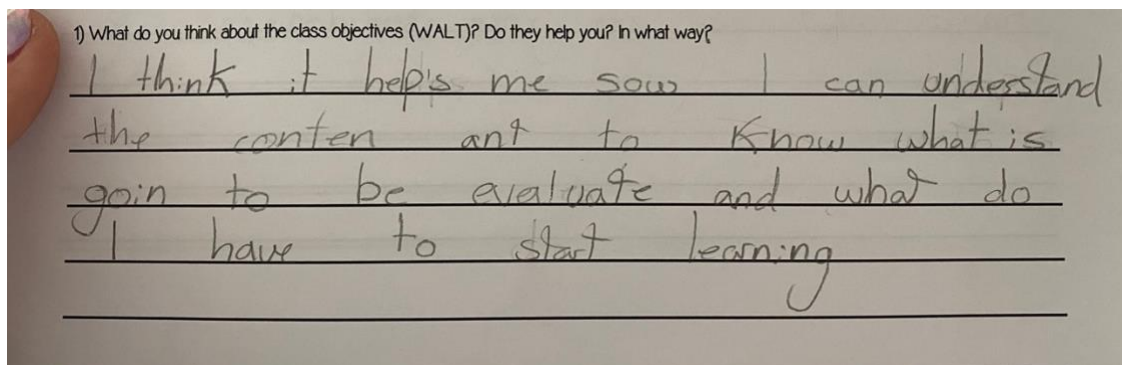
There are many factors that can increase the level of performance of students beside learning objectives, like; responsibility, motivation, or attitude, but we can clearly see in the graphs starting from left (beginning of the year without intervention), to right (end of the year with intervention) that grades became higher.

- Reactions of students to the objectives:

From the questionnaires open questions it was shown that 34 students' reactions to class objectives were mainly positive. Most of the answers said that class objectives helped them understand and know the content, prepare for tests because they knew what to study, not being lost in the lessons, and concentrate more, also, they were useful to know how to be a good student and helped them reflect on the content. Finally, they helped them recognize what information they need to write on their copybook and with all those positive elements that learning objective gave them, they started having better grades in the different subjects.

Beside those positive answers, 5 students answered that class objectives were a waste time, they did not pay attention to them, so that is why they do not help them. Also, they mentioned that they did not know how to use them, so they were not useful in anyway.

Here are some real answers of students:



1) What do you think about the class objectives (WALT)? Do they help you? In what way?

The Walt help me in then Understand
 The classes what we are going to
 do Then like in the quizzes or
 when we do a worksheet and
 also to Understand the content to
 Then study.

1) What do you think about the class objectives (WALT)? Do they help you? In what way?

y think that it is usefull because it helps
 me understand and know what we are
 going to do in the class and what
 y need to know when y study
 at my home.

1) What do you think about the class objectives (WALT)? Do they help you? In what way?

A MI ME AYUDA PARA ESTUDIAR Y PARA
 TOMAR NOTAS PARA LOS TEST YO PIENSA
 QUE SON BUENAS PORQUE TE AYUDAN A
 REPASAR,

From class observations the results were similar to the questionnaires, in class observations I could observed that students reacted in a good way to class objectives because with them they were able to understand better the class and the learning process, they could understand the path of learning and understand that the content is not isolated form one lesson to another. I also discovered that when students could not properly understand the class objective, they asked questions about it to be able to follow the class. During the pass of time, they were able to understand the real value of class objectives in their learning process, to the point that they wanted to start creating their own objectives for each lesson.

- Usage or reference of the objectives during the learning process:

Once analyzed the multiple-choice questions of the questionnaires the results showed that 30 students used the objectives to review, to pay more attention or to study, and only 7 students of the class did not use the objectives. On another hand, 31 students used the class objectives during the lessons in some way and only 6 students did not use them. This answer shows as that class objectives are useful for students and that maybe those students that don't use them don't understand how to use them in a helpful manner, or they really do not want to pay attention to them, because they do not see the real value they can gain out of class objectives.

From class observations I mainly can say that students used the class objective when they got lost in any part of the lesson, or for knowing what is coming next. They also used the class objectives when the content was a little more difficult, so they asked the teacher to explain the content with the class objective to make the connection between them and understand it in a clear way. Finally, I can say that students make reference to class objectives at the end of the lessons or units when they needed to know if they were able or not to achieve the goal, that in simple words was achieving the class objective, and as a result having good grades at tests and all types of evaluations.

5. Conclusions:

Now that we analyzed all the results of the data collection methods we can conclude and answer our research question: how letting students know the class objective/s before starting the lesson let students perform better in the formative evaluations and summative evaluations?

We know that learning objectives refer to what students should understand and be able to do, and based on all the data analysis I discovered that students mainly used the objectives for knowing and understanding what they should be able to achieve at the end of the lesson or unit and the path they should take to be able to get there (Wiggins, Wiggins, & McTighe, 2005).

Learning objectives were also useful for increasing student performance in the different subjects, this happened because students were able to answer the three questions (where am I going? how I am going there? what do I do next?) meanwhile they were learning. Objectives help them in guiding their learning and studying process and this ended in good grades and good performance scales, because they knew which was the goal, they knew how to go there, and they knew what next step to follow once the goal was achieved (Hattie & Yates, 2013).

Besides, most of the students that participated in this action research view learning objectives as a useful tool for their learning process, I found that some students actually did not discover or understood the value of objectives, because they looked at them as something without value that did not help them neither in their performance nor learning process. I think this happened because they have not discovered how useful they could be for them; they have not learned how to use them for their learning and how objectives can help them in understanding in a simpler way what they should be able to learn in each lesson or unit. We as teachers should make students reflect about learning objectives, this way I think these students that saw learning objectives as a not useful tool will start giving them the value that they really have and will start using learning objectives for their whole

life, because they will discover that they will simplify their learning process and that they will start increasing their grades with a simple strategy.

6. Final Reflection:

This action research helped me as a future teacher in many ways. First, I learned how to conduct action research in my future classrooms, so whenever I want, I can apply what I learned in my future classroom and start any action research. Second, I discovered that with this type of research you can understand and get to know your students from a different point of view, the view of a researcher and not only the view of the teacher that is inside the class all day with them. Finally, I learned to not be afraid to fail on research, because all researchers must learn that you are not always going to find and conclude what you expected to provoke or gather with the intervention, research is unpredictable, and you must be prepared for all types of results.

7. References:

- Coalition for Psychology in Schools and Education. (2015). *Top 20 principles from psychology for preK-12 teaching and learning*. American Psychological Association.
- Hattie & Yates (2013). *Visible Learning and the Science of How We Learn*.
- Henning, J. E., Stone, J. M., & Kelly, J. L. (2009). *Using Action Research to Improve Instruction*. Taylor & Francis Routledge.
- Hine, G. S. (2013). The Importance of Action Research in Teacher Education Programs. En *Issues in Educational Research* (págs. 151-163). The University of Notre Dame, Australia: Editorial Subcommittee for the Special Issue.
- Hunter, M. (1989). Madeline Hunter in the English classroom. *The English journal*, 78(5), 16-18. Available through UANDES Library:

<https://www.jstor.org/stable/pdf/819193.pdf>-Marzano, R. J. & Pickering, D. J. (2005).

Dimensiones de aprendizaje Manual para el maestro.

-Norton, L. S. (2009). *Action Research in Teaching and Learning: A practical guide to conducting pedagogical research in universities*. Taylor & Francis Routledge.

-Wiggins, Wiggins, & McTighe (2005). Understanding by design.

8. Annexes:

Pedagogical intervention

Pedagogical strategy carried out by the teacher	Time of application during the day/class, frequency, and duration	Resources used
1. Letting students know the class objective of each lesson.	Before each lesson of Math, English, Natural Sciences (project), and Social Science(project). During all the lessons on the first 5 minutes.	Whiteboard Whiteboard markers
2. Evaluate students with a formative or summative assessment at the end of the lesson once all the content is covered.	In each lesson of Math, English, Natural Sciences, Social Science, Technology.	Exit ticket Post-it Show me strategy Worksheet Or any way for evaluating students

NAME: _____ GRADE: 5TH _____

Questionnaire

This questionnaire will be answers only once by all the students of the fifth grade C

The idea is them to answer it in morning routine, so they do not waste time of class.

Dear students, I need you to please answer this questionnaire with the truth, it will not take you more than 10-minutes to answer it.

Multiple choice:

Choose one option for each question and mark it with and X

1. Do class objectives (WALT) help you do better in the tests, evaluations, or quizzes?

- a) Yes
- b) No

2. How do you use class objectives (WALT)?

- a) To review.
- b) To pay more attention in class.
- c) To study.
- d) I don't use them.

3. Why do you use the class objectives (WALT) during the class in any way?

- a) To understand the content.
- b) To know what is going to be evaluated.
- c) For being able to follow the lesson.
- d) I don't use them in class.

Open questions:

1) What do you think about the class objectives (WALT)? Do they help you? In what way?

2) How is your performance in class if you know the class objectives (WALT)? Why?

3) Do you pay attention to class objectives? Why?

4) Is knowing the class objectives useful for you? In what way?

Lesson Observations:

Narrative observations: Three times a week the teacher will observe a lesson of each one of the subjects and write a narrative about what happens in the classroom, she will also focus on the lesson objectives and the end of class assessments or the formative assessments of the lesson. These observations will be done all Tuesdays, Wednesdays, and Thursdays from May until the middle of June on the lesson of Math, English, Social Sciences (project), and Natural Sciences (project).

Questions to guide my observations: How do students perform in formative assessment of the lesson? Do students react to the objectives of the lesson? Do they ask questions? Do they use the objectives in any way during the class? Do they make reference to the objectives during the class?

Tuesday May 24:

Time: All day

Math	
Project	
English	

Wednesday May 25:

Time: All day

Math	
Project	
English	

Thursday May 26:

Time: All day

Math	
Project	
English	

Tuesday May 31:

Time: All day

Math	
Project	
English	

Wednesday June 1:

Time: All day

Math	
Project	
English	

Thursday June 2:

Time: All day

Math	
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Project	
English	

Tuesday June 7:

Time: All day

Math	
Project	
English	

Wednesday June 8:

Time: All day

Math	
Project	
English	

Thursday June 9:

Time: All day

Math	
Project	
English	

Tuesday June 14:

Time: All day

Math	
Project	
English	

Wednesday June 15:

Time: All day

Math	
Project	
English	

Thursday June 16:

Time: All day

Math	
Project	

English	
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