INQUIRY-BASED LEARNING: PRACTICING LANGUAGE TEACHING THROUGH QUESTIONING

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Abstract: The issue of critical thinking and questioning in teaching is not a new term. Different studies and research have implied that student involvement in the learning process, cognition and metacognition along with Bloom's taxonomy, influence the degree of language learning and acquisition. Student-centered teaching and learning require deep involvement and active participation i.e. students full engagement in the process, interaction and feedback. In student centered learning, the focus is more on the students and less on the teacher and students are required to complete more tasks and partake in activities. They are required to develop the skill of critical thinking and are seen as active participants in the process. What does the term *"inquiry"* mean in education and how can teachers implement it in their everyday teaching? Regarding the term inquiry, there are many perspectives. According to Kidman & Casinder (2017) there are three frameworks: (a) the identification of classroom goals; (b) the identification of the instructional approach used in the inquiry to engage the student and (c) determination of the degree of direction from the teacher. In teaching, the role of the teacher in setting goals and implementing them is the basis to overall success. The manner of how teachers choose to involve the learners in the lessons normally differs along with their beliefs and theories of teaching. Determining the different tasks and activities and keeping a balance among the materials, students' needs and the course requirements is an everlasting struggle in teaching. Therefore, providing learners with demanding and interesting tasks and at the same time requiring from them to be self-critical is not an easy process. This paper presents a different aspect of inquiry-based learning, namely a different perspective. It shares the process of both learning a foreign language (as students of ELT) and that of planning for teaching (as pre-service teachers). It further presents the procedure of tasks and events and also the theoretical and practical aspect of inquiry-based learning, along with personal experience and the manner of implementation. Its' aim is to help teachers reflect on the issue and to present the advantages of the usage of critical thinking in teaching, learning and acquisition. Namely, it intends to clarify the aspect of "choice and method" and to share the different insights, reflections and methodology used. In most cases, it not only helps in decision making, but also helps in establishing an overall active class with all of the important elements of inquiry being present at all times.

Keywords: critical thinking, inquiry, metacognition, instructional approach, acquisition etc.

1. INTRODUCTION

If you're walking down the right path and you're willing to keep walking, eventually you'll make progress.
Barack Obama

The following paper introduces a different aspect of teaching English, rather one that is not new but is not implemented enough in our everyday teaching instruction. It aims to provide insights on the theoretical and practical part of questioning, which helps students achieve greater ability in critical thinking, higher order thinking and self-reflection. The degree to which students are taught to analyze and put into practice the skills they have is crucial in learning a language, English in this case. According to Barrow (2006) the National Research council (1996, 2000) defined scientific inquiry as a process where students: 1. identify questions and concepts that guide investigations (students formulate a testable hypothesis and an appropriate design to be used); 2. design and conduct scientific investigations (using major concepts, proper equipment, safety precautions, use of technologies, etc., where students must use evidence, apply logic, and construct an argument for their proposed explanations); 3. use appropriate technologies and mathematics to improve investigations and communications; 4. formulate and revise scientific explanations and models using logic and evidence (the students' inquiry should result in an explanation or a model); 5. recognize and analyze alternative explanations and models (reviewing current scientific understanding and evidence to determine which explanation of the model is best); and 6. communicate and defend a scientific argument (students should refine their skills by presenting written and oral presentations that involve responding appropriately to critical comments from peers). (Barrow, 2006, p. 268) This view of knowledge suggests that students learn best when the subjects are meaningful to them. Student tasks must have "an authenticity, [and a

sense] that the work being done in classrooms is 'real work' that reflects the living realities of the discipline being taught" (WNCP, 2011).

Knowledge has traditionally been seen as a collection of facts, a body of content, or a list of processes or procedures to master. However, knowledge is now "understood as organized in living, developing fields, changing and adapting in the presence of new circumstances, new evidence and new discoveries" (WNCP, 2011, p. 3).

Accordingly, consider the following in your teaching instruction:

1. the degree and level of efficiency i.e. methodology, tasks, materials etc.
2. the degree of teacher-involvement versus student-involvement;
3. the degree of implementation of critical thinking, observation, self-reflection, feedback etc.
4. the influence of questioning in the learning process and the impact on the overall student success etc.

Determining the different tasks and activities and keeping a balance among the materials, students' needs and the course requirements is an everlasting struggle in teaching. The degree of professionalism and personal theories imply different strategies and approaches; identifying goals from the beginning and onwards implies that the teacher has thoroughly thought of the content and the students and has set the certain guidelines which will lead to successful teaching and learning. Why goals?

"Goals mediate learning, teaching, and curriculum contexts. They also influence the strategies and actions that people take to improve their abilities. In educational settings, students' goals derive from long-term personal histories, which in turn contribute to their focus on present activities, thus shaping future abilities. Teachers' goals likewise build on pedagogical knowledge and experience, the purposes and constraints of the courses they are employed to teach, and their understanding of the specific learners they encounter in their classes." (Cumming, A. 2006, pg.4)

According to Blessinger and Carfora (2015) "IBL as an approach instead of a specific method, is a cluster of teaching and learning strategies where students inquire into the nature of a problem(s) or question(s). The problem or question scenario thus serves as a mechanism and catalyst to engage actively and deeply in the learning process. This approach is constructivist in nature because it allows the student to take greater ownership of her/his learning by allowing them a means by which to construct their own knowledge rather than just having that knowledge merely spoon-fed to them by others. Thus, a chief aim of IBL is to empower both teachers and students." (2015, pgs. 5-6)

The issues of critical thinking, observing and absorbing are center to the learning process. Learners gain a wider horizon of ideas and gain greater language capacity, both on the individual perspective and also on the social perspective. Active learning and engagement make learners independent in terms of sharing ideas and in building their self-confidence. As language teachers, we are aware of the fact that learning a second or a foreign language requires high motivation and self-esteem and a low affective filter. In order to achieve such circumstances, learners must be taught to rely on their inner thoughts and ideas and to communicate them with others. They should also be supported in retaining and sharing information. Therefore, "the meaning of 'knowing' has shifted from being able to remember and repeat information to being able to find and use it." (National Research Council, 2007) (Ret. From: http://www.teachinquiry.com/index /Introduction.html)

Accordingly, inquiry-based learning is an approach to teaching and learning that places students' questions, ideas and observations at the center of the learning experience. Educators play an active role throughout the process by establishing a culture where ideas are respectfully challenged, tested, redefined and viewed as improvable, moving children from a position of wondering to a position of enacted understanding and further questioning (Scardamalia, 2002). A good teacher is therefore one who implements the ingredients of student-centered learning and assists students in the process of inquiry. The different perspectives of question-based teaching and learning define an active approach in the process, by which, student involvement is at the center. As with each and every step we take in teaching, implementing inquiry-based learning requires "setting the grounds" and making learners aware of its' effect. In most cases, learners should be told about the importance that a certain approach has on their learning and the outcomes that they will receive for effective results. In our region, the cultural upbringing or even the previous experience with traditional teachers, imposes on our learners that "teacher responsibility" relies on how much WE talk in class, how much we say about a certain topic and the degree of OUR lecture, by which, student-centered learning is often rejected and regarded as "lack of teacher responsibility" in the teaching process. Rarely are our learners aware of the impact that their ideas, discussions and feedback have on their learning and that it takes a very well-prepared teacher to be capable of placing students at the heart of the learning process i.e. appointing them to tasks and questions, gaining feedback and presenting the objectives of a certain task (the "why" of a certain task). Accordingly, whenever we choose to implement something "new" the learners are made aware of the process, the steps and the outcomes from the beginning. We have found that students' value something much more when they know the specific outcomes of a procedure and know that it is needed for their own personal development of

language proficiency, collaboration and critical thinking. There are different approaches and methods that can be used for this cause, and a specific task will be further presented below.

1.1. FROM THEORY TO PRACTICE: DIFFERENT FORMS OF IBL IN THE CLASSROOM- TASKS AND ACTIVITIES

There is a framework of activities that we have chosen to follow in courses which are designed for teachers to be such as the course *Teaching young learners* for example. Some main items regarding the course and referring to IBL are:

I. ***Designing a lesson plan*** for a certain skill which will be taught by students themselves. This part refers to all the general and specific information that students will include in their plan, the aims and objectives, the techniques, the resources, feedback etc.

II. ***Student teaching***- In this part students put the plan into action. They design activities, manage tasks and provide materials intended for the young learners.

III. ***Observation***- The instruction is observed by us and the class students and comments are provided at the end. This refers to the positive critiques that students provide their peers. It refers to professional support and growing.

IV. ***Self-reflection***- The students are required to reflect on their own experience and provide feedback in the upcoming class. During this phase students learn to distinguish between what was good and not so good, what should have been differently and the obstacles they encountered. *This is referred to as the moment of truth.*

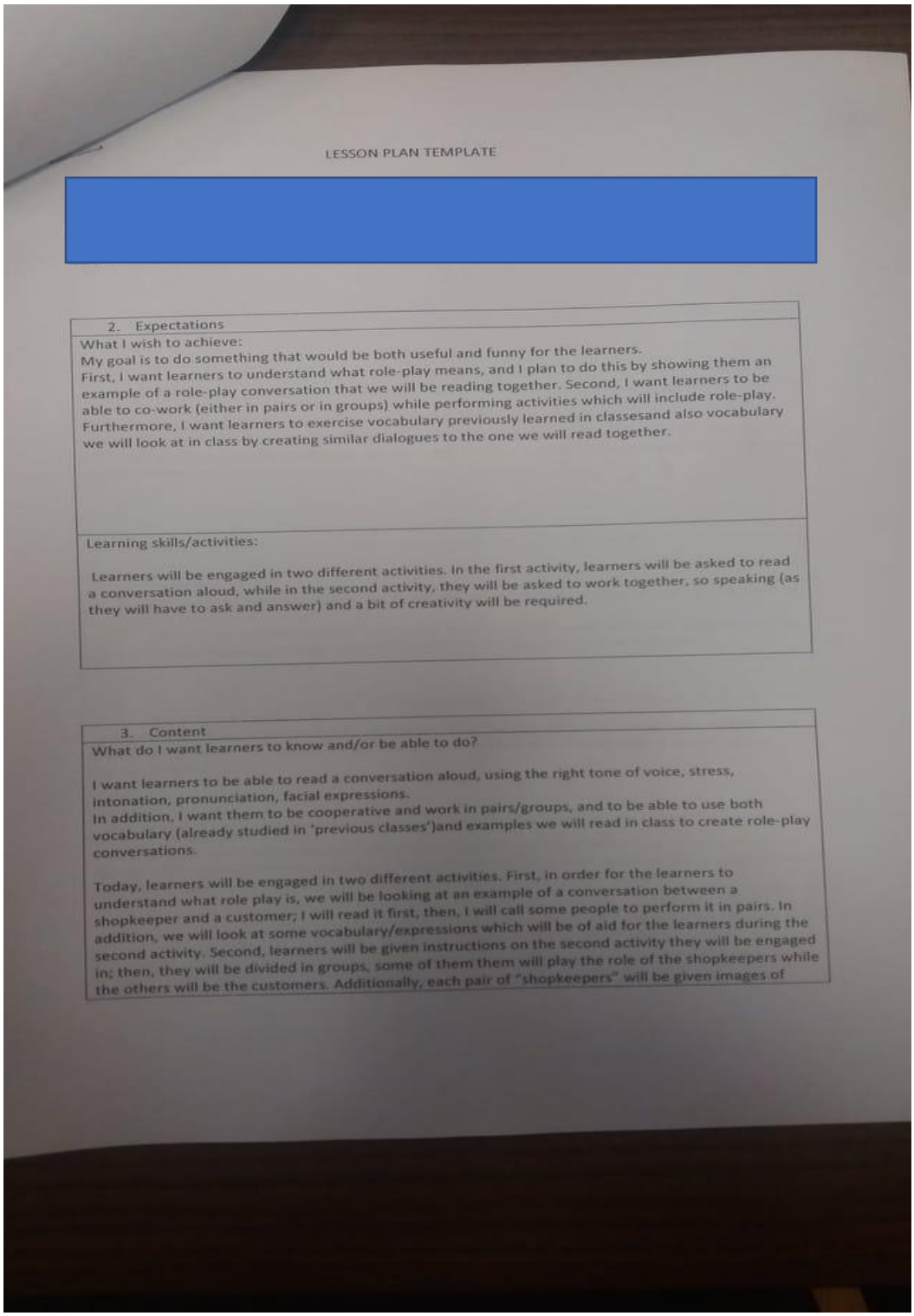
V. ***Critical thinking*** is normally an ongoing item of the whole process.

2. LESSON PLAN TEMPLATE ITEMS AND SAMPLE

The lesson plans usually consist of the same or similar items. They provide students with an organized sequence of events and as so, require from students to pre-think about the instruction. Items of lesson plans are as follows:

1. Lesson plan information (topic, level, nr. of students, duration, etc.)
2. Expectations/learning skills activities
3. Content
4. Assessment
5. Learning context: the learners/ the learning environment/ resources

A sample lesson plan with the proceeding items and events is presented in the paper. For the sake of paper guidelines and restrictions, only one example is provided by us. Please note that 26 students partook in this teaching experience as part of their semester assignment. Students were also actively teaching in PREP i.e. the language center as part of their Internship to foreign students whose English proficiency is lower than the average level needed for studying at IBU. (Note: For the sake of anonymity, the name of the student has been removed).



LESSON PLAN TEMPLATE

2. Expectations

What I wish to achieve:
My goal is to do something that would be both useful and funny for the learners.
First, I want learners to understand what role-play means, and I plan to do this by showing them an example of a role-play conversation that we will be reading together. Second, I want learners to be able to co-work (either in pairs or in groups) while performing activities which will include role-play. Furthermore, I want learners to exercise vocabulary previously learned in classesand also vocabulary we will look at in class by creating similar dialogues to the one we will read together.

Learning skills/activities:

Learners will be engaged in two different activities. In the first activity, learners will be asked to read a conversation aloud, while in the second activity, they will be asked to work together, so speaking (as they will have to ask and answer) and a bit of creativity will be required.

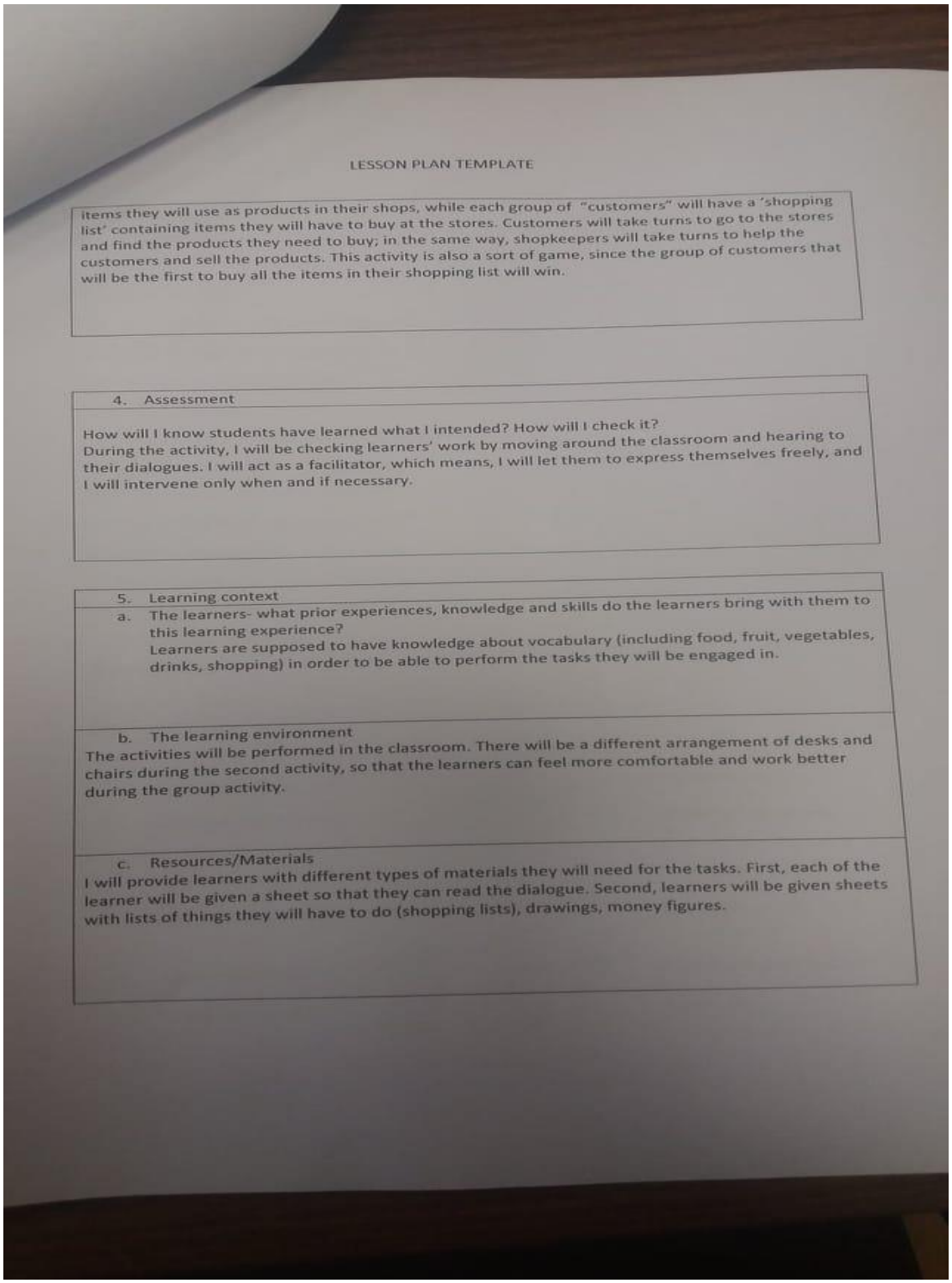
3. Content

What do I want learners to know and/or be able to do?

I want learners to be able to read a conversation aloud, using the right tone of voice, stress, intonation, pronunciation, facial expressions.
In addition, I want them to be cooperative and work in pairs/groups, and to be able to use both vocabulary (already studied in 'previous classes')and examples we will read in class to create role-play conversations.

Today, learners will be engaged in two different activities. First, in order for the learners to understand what role play is, we will be looking at an example of a conversation between a shopkeeper and a customer; I will read it first, then, I will call some people to perform it in pairs. In addition, we will look at some vocabulary/expressions which will be of aid for the learners during the second activity. Second, learners will be given instructions on the second activity they will be engaged in; then, they will be divided in groups, some of them them will play the role of the shopkeepers while the others will be the customers. Additionally, each pair of "shopkeepers" will be given images of

Fig.1. Student sample, Lesson plan, pg.1



LESSON PLAN TEMPLATE

items they will use as products in their shops, while each group of "customers" will have a 'shopping list' containing items they will have to buy at the stores. Customers will take turns to go to the stores and find the products they need to buy; in the same way, shopkeepers will take turns to help the customers and sell the products. This activity is also a sort of game, since the group of customers that will be the first to buy all the items in their shopping list will win.

4. Assessment

How will I know students have learned what I intended? How will I check it?
During the activity, I will be checking learners' work by moving around the classroom and hearing to their dialogues. I will act as a facilitator, which means, I will let them to express themselves freely, and I will intervene only when and if necessary.

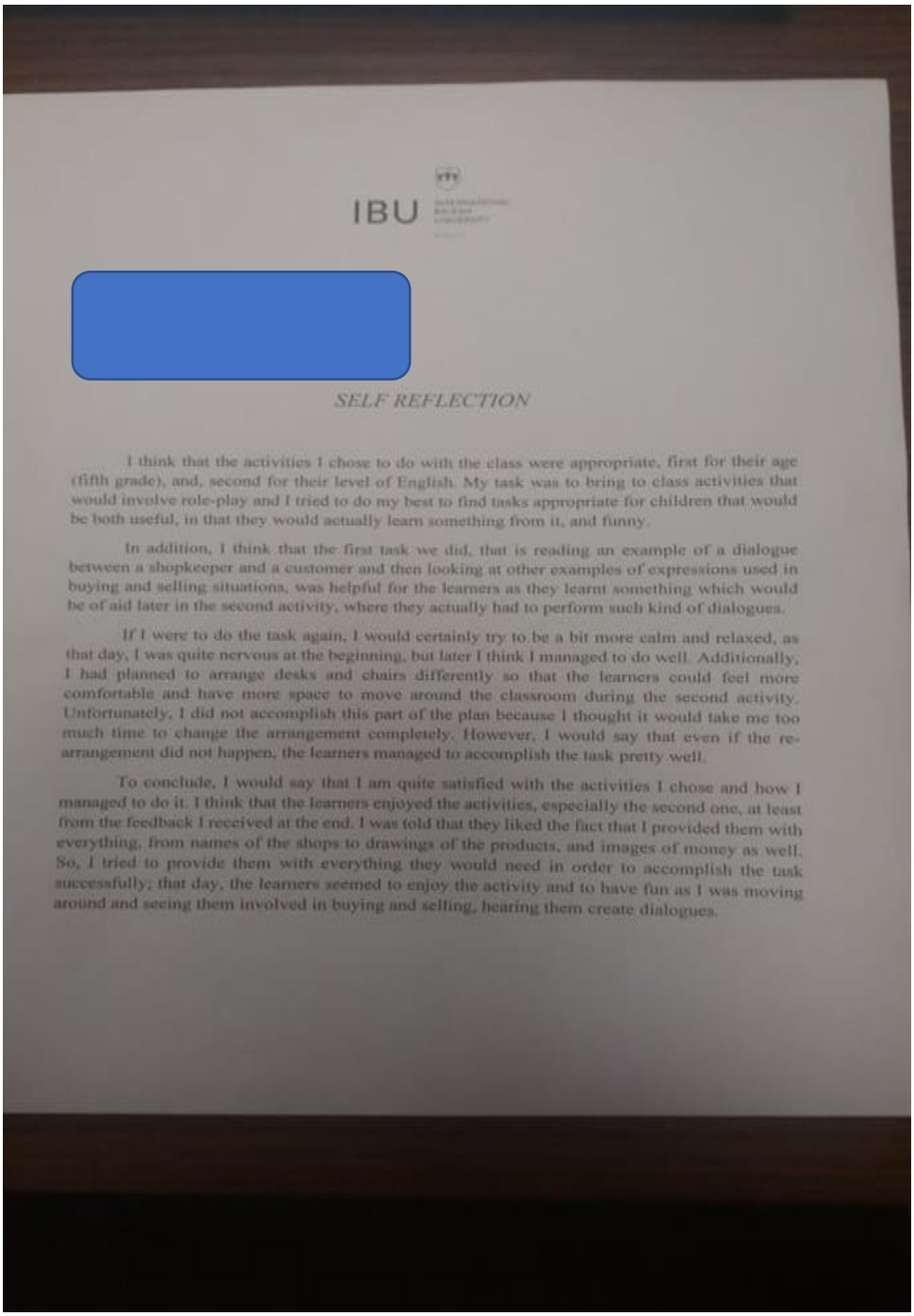
5. Learning context

a. The learners- what prior experiences, knowledge and skills do the learners bring with them to this learning experience?
Learners are supposed to have knowledge about vocabulary (including food, fruit, vegetables, drinks, shopping) in order to be able to perform the tasks they will be engaged in.

b. The learning environment
The activities will be performed in the classroom. There will be a different arrangement of desks and chairs during the second activity, so that the learners can feel more comfortable and work better during the group activity.

c. Resources/Materials
I will provide learners with different types of materials they will need for the tasks. First, each of the learner will be given a sheet so that they can read the dialogue. Second, learners will be given sheets with lists of things they will have to do (shopping lists), drawings, money figures.

Fig.2 Student sample lesson plan, pg.2.



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SELF REFLECTION

I think that the activities I chose to do with the class were appropriate, first for their age (fifth grade), and, second for their level of English. My task was to bring to class activities that would involve role-play and I tried to do my best to find tasks appropriate for children that would be both useful, in that they would actually learn something from it, and funny.

In addition, I think that the first task we did, that is reading an example of a dialogue between a shopkeeper and a customer and then looking at other examples of expressions used in buying and selling situations, was helpful for the learners as they learnt something which would be of aid later in the second activity, where they actually had to perform such kind of dialogues.

If I were to do the task again, I would certainly try to be a bit more calm and relaxed, as that day, I was quite nervous at the beginning, but later I think I managed to do well. Additionally, I had planned to arrange desks and chairs differently so that the learners could feel more comfortable and have more space to move around the classroom during the second activity. Unfortunately, I did not accomplish this part of the plan because I thought it would take me too much time to change the arrangement completely. However, I would say that even if the re-arrangement did not happen, the learners managed to accomplish the task pretty well.

To conclude, I would say that I am quite satisfied with the activities I chose and how I managed to do it. I think that the learners enjoyed the activities, especially the second one, at least from the feedback I received at the end. I was told that they liked the fact that I provided them with everything, from names of the shops to drawings of the products, and images of money as well. So, I tried to provide them with everything they would need in order to accomplish the task successfully; that day, the learners seemed to enjoy the activity and to have fun as I was moving around and seeing them involved in buying and selling, hearing them create dialogues.

Fig.3 Student sample self-reflection

3. TASK BASED AND PROJECT BASED LEARNING

We have used task-based and project-based learning as a basis of critical thinking development and collaboration quite frequently during our teaching and students have usually enjoyed them very much. Both approaches are similar in the aspect of their aims- they facilitate the learning of a FL due to their aim being the accomplishment of "task or project." Therefore, students work together in order to achieve the desired outcomes (the project or task) without having the fear or anxiety of FL competency. In ELT methodology, we regard this as "learning the language while doing the task, unconsciously rather than consciously, with the help of the other group members." According to Krauss & Boss (2013), PBL consists of the following outline of events:

	Meaning	**So**
In project-based learning,	*The emphasis is on the student experience—learning*	*The teacher does less direct instruction. He or she designs, prepares, and guides projects and learns alongside students.*
students gain important knowledge, skills, and dispositions	*Projects are the curriculum—not an add-on—and through them, students develop important capabilities*	*The teacher designs toward and assesses growth in all three areas.*
by investigating open ended questions	*Questions activate, arousing curiosity and driving students to inquire*	*The right question at the start leads to more questions—ones that students can investigate.*
to "make meaning"	*The learning is important, unique, and holds value for the student and others*	*Projects elicit higher-order thinking: theorizing, investigating, analyzing, creating, and drawing unique conclusions.*
that they transmit in purposeful ways.	*The form the project takes matches the function it's meant to serve (inventing, entertaining, persuading, motivating, or inspiring)*	*A "loose" project structure allows for creative expression, and transmission of knowledge makes the learning "stick."*

Fig. 4 The Whys and Hows of PBL- INQUIRY: THE ENGINE OF DEEP LEARNING, PG.6
(Thinking through project-based learning, Guiding deeper inquiry, Krauss, J.& Boss, S. 2013).

Accordingly, the essential ingredients of PBL are: "in project-based learning, students gain important knowledge, skills, and dispositions by investigating open-ended questions to "make meaning" that they transmit in purposeful ways." (Krauss & Boss, 2013, pg. 5). The effect of inquiry-based teaching and learning is achieved when learners are actively engaged in critical thinking, in analyzing, absorbing and providing the required output (outcome). In synthesis of two meta-analysis of "inquiry-based teaching" Hattie (2009, p. 208) found that this approach resulted in improved student performance in a number of areas. Noting that much of the research on inquiry-based teaching has happened in science, Hattie defines this approach as follows: Inquiry-based teaching is the art of developing challenging situations in which students are asked to observe and question phenomena; pose explanations of what they observe; devise and conduct experiments in which data are collected to support or contradict their theories; analyze data; draw conclusions from experimental data; design and build models; or any combination of these. (p. 208) Nevertheless, this form of questioning can be used in any other field of science, humanities or language learning and teaching. Teachers who wish to set such guidelines and provide learners with activities that promote active-involvement, should be prepared and possess knowledge of the same. Tasks and projects are time-consuming and should be well-planned in order to be successful. Apart from this, they need to set clear objectives, guidelines and a deadline for its' accomplishment. Students should learn the value of team-work and the issue of responsibility, on the level of individual perspectives and as group perspectives. In the field of ELT, as teachers, we come across different issues and as so, need different expertise. Teachers are required to have a readiness of sharing and gaining expertise and also of implementing the same, without being afraid of the task consequences at the end. Reflection prior performing a task is needed as much as the after-task reflection. The first one sets the approximate grounds, insights and benefits, while the after-task reflection displays the "achieved outcomes." In both cases, inquiry is the basis of effective accomplishment. The set of WH-questions are inevitable in the field of teaching, so long as we know our goals and the desired outcomes.

4. CONCLUSION AND RECOMMENDATIONS

This approach is constructivist in nature because it allows the student to take greater ownership of her/his learning by allowing them a means by which to construct their own knowledge rather than just having that knowledge merely spoon-fed to them by others. Thus, a chief aim of IBL is to empower both teachers and students.

The issues of critical thinking, observing and absorbing are center to the learning process. According to Barrow (2006) "when students practice inquiry, it helps them develop their critical thinking abilities and scientific reasoning, while developing a deeper understanding of science" (p. 269). The National Research Council (2000) supports the findings of Barrow. Learners gain a wider horizon of ideas and gain greater language capacity, both on the individual perspective and also on the social perspective. Active learning and engagement make learners independent in terms of sharing ideas and in building their self-confidence.

Therefore, "the meaning of 'knowing' has shifted from being able to remember and repeat information to being able to find and use it.

Through the provided information, we strongly recommend IBL and advise teachers to put it to practice in their everyday teaching.

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