

APPLICATION OF INQUIRY-BASED LEARNING METHOD IN SOCIAL SCIENCES

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Abstract:

Inquiry-based learning (IBL) or Inquiry-based teaching (IBT) are based on Inquiry strategies that actively involve students in exploring the learning content, issues, and questions that arise on concepts and curricular objectives of the educational program. Activities and tasks in IBL classes can be designed on students' individual active work or group work to solve the problems raised, which may also include tasks in and outside the auditorium. This learning development strategy is mostly focused on students' self-action. Their confidence in dealing with the tasks depends on the pupil's level and their adjustment with the developmental skills of the Inquiry process. IBL method has been very effective in the students' cognitive formation. In addition to high-level student motivation, one of the main reasons why IBL is applied nowadays is because it affects the active involvement of students in the learning process. Facing students with such a challenging issue allows them to reflect on their acquisition process, develops their imagination, brings new experiences, activates logical thinking and critical thinking in solving the problems posed. This paper aims to focus on the importance of IBL in students' cognitive formation through investigations in our teaching subjects. In this process, students share opinions with their peers, discuss various papers and enhance their knowledge from various sources. IBL has proven high effectiveness in the formation and mental education of students.

Keywords: IBL, method, social science, strategy, students.

1. Introduction

Inquiry-Based Learning (IBL) or Teaching based on inquiry (IBT) are research strategies that involve students and teachers in teaching and learning content, discovering issues and questions that arise on the concepts of the curriculum. Activities and tasks in IBL classes can be designed on students' individual active work or group work in solving the problems raised, which include tasks in and outside the auditorium. This trust in the student's work depends on their level and adaptation to the developmental habits of the research process.

In writing it is known with the abbreviation IBL (Inquiry-Based Learning) or in British English EBL (Enquiry-Based Learning). IBL is strategy-based research that actively involves students in the content exploration process, observing problematic issues and examining the questions that arise for explaining concepts or learning objects (Paulson, 2011). Activities and tasks in an IBL classroom may be designed in such a way that students can work individually or in groups to solve problems involving or group work to solve problems raised, which may also include tasks in and outside the auditorium. While strategies focus more on the student. The presence of the teacher to guide the students' practices depends on the level of the students, from their academic achievements as well as their training in the use of IBL (Lane, 2007).

2. Methodology

Our study is carried out through a complex methodology, where the theoretical

description and the best experiences of the experts in the field of pedagogy are harmonized with concrete observations and research in the University environment.

Concrete analysis of individual and group work helps us to come to valuable conclusions on increasing the efficiency of this strategy, as well as to investigate the causes and provide solutions when students do not successfully perform a task.

Through questionnaires students and teachers were asked about the efficiency, the approach, and satisfaction of their individual and group work as well as the environment of their realization (auditorium and out of it). In addition, we relied on the teacher's assessment to analyze individual or group work without being affected by their psychological viewpoint and assessing the students' work as external experts. The selection of the sample of teachers and students covered only within one district, thinking that the research will be extended to other districts for comprehensive analysis in education.

This study reveals the level of impact of independent research work on the results of social science students and the importance that these research methods receive in the student's professional formation. The application of student-centered teaching techniques and those of a research character depend on the influence of several factors. For this reason, posing the problem and defining the research questions was preceded by the question:

What are the factors that favor the most in the effective application of research techniques, compared to directive techniques?

To determine these factors, the internal and external relationships of factors influencing research-based learning were considered. Direct data were observed and collected on the effects of independent research work in collaboration with professors and students at the University "Aleksandër Moisiu" Durrës.

The sample population, in this study, consists of students of the faculties of humanities and social sciences. 100 students of Language-literature-English, Psychology-Sociology branches were included in the study. The sample was selected on a random basis. This sampling technique selects those sampling units that can be used more easily in each period. Although this technique has the advantage of fast selection, easy management, and low cost, we consider a non-representative sampling. For this reason, it was followed by a probabilistic sampling by the student population of the University of Durrës.

3. Theoretical Framework/Philosophy

The philosophical basis on which independent research work is based is constructivism. Constructivism puts the student at the center of the learning process. According to constructivist theorists, learning philosophy is based on two basic principles: firstly, knowledge is constructed through active participation in the learning process; secondly, the student learns by processing and creating knowledge relying on his previous experiences and combining them with newly built new knowledge (Schunk, 2008). In these principles we find two important concepts: "active learning" and "processing and creating new knowledge on student experiences". These principles serve as the basis for the effective implementation of research. Bruner Piaget and Vigotsky regard learning as an act of the child himself depending on his social environment. Bruner is also known as an extreme constructivist as he acknowledges that the world is a product of his mind, as a product of symbolic processes. He is more interested in how the individual organizes and uses knowledge than in his development in relation to biological growth (Bruner 2003). Bruner develops the theory of exploratory learning. Basically, exploratory learning is a research-based learning method. According to this theory, the student is enthusiastic to discover different facts and relationships within a given situation. Problem-solving is based on experience, in the data and reasoning conducted by the students themselves. Learning, according to Bruner, is an active process, in which the student structures

new ideas or concepts based on past and current knowledge (Bruner. 1967). The student in this model processes the information through a cognitive structure composed of the scheme, schemes, diagrams, sketches, thinking patterns, etc. During this process, both the teacher and the student engage in an interactive dialogue (Socratic learning). Research learning theorists starting from Dewey, Montessori, Piaget, Bruner, and Costa recommend school science as an effective model in equipping individuals with habits, knowledge, and life skills, enabling them to adapt and integrate with the demands of society (Won, 2009). School science orients student activity to inquiry learning. Inquiry is the controlled or directed transformation of a completely unknown situation, in a clear and understandable situation by converting its elements into a comprehensible context, acceptable and supported by everyone. In this way, learning is a process that helps students to rebuild or to reorganize their experiences in a productive way (Won, 2009). Students, to achieve high and stable results through the implementation of independent inquiry tasks, should be prepared with the habits of organizing learning skills to solve problems, to develop independence of thinking, diligence for work and interest to learn exploring the world itself in its own way. Teachers' work in motivating students should be more careful with demotivated students (Brewster & Fager 2000).

4. Hypotheses

Research question 1. What are the most important factors influencing inquiry?

Hypothesis 1. Carrying out independent research work by the student affects more than other techniques in the realization of tasks of a comprehensive nature, group work and the teacher/mentor play a very important role.

Research question 2. What are the ways that promote the finalization of Inquiry theses?

Hypothesis 2. Performing independent research work by students affects the full inquiry analysis and encourages the students to raise hypotheses and verify them

5. Questionnaire's results & analysis & questions

From the data analysis of the questionnaire, it is noticed that IBL finds applicability in all levels of study. Less applicable this strategy is in the Low Level of Study. At these ages, we think that the most effective technique for applying IBL is an excursion. One of the best ways to make Inquiry-based learning as realistic as possible is to get students out of the auditorium so that they can see and do things themselves. E.g.:

- going to the theatre, to watch the realization artistic,
- going to the field to collect insects,
- close observation of ecological problems,
- visits to museums to contemplate art masterpieces,
- visit the scene of an event etc.

a) Circle the Level you are studying:

- a. LSEL Lower & Secondary Education Level
- b. HSEL Higher & Secondary Education Level
- c. TEL Tertiary Education Level

The measurements show a close proportional ratio between the group and individual work, respectively 48/52. Higher and secondary school students prefer to work in groups and claim to feel good when asking questions to group members and this encourages them to deal with problematic discussions. University students also claim that teamwork is better and more effective.

According to Peter Singe at al., 'the level of individualization of the task depends on the objective of the teacher, whether the given task should meet the needs of each student/pupil, needs of a certain group of students or the whole class. Individuality is related to the type of task, student needs, or degree of independence in acquisition. In this context, the level of the student's ability to work is also expressed quite independently or autonomously (Senge, 2000). University studies are often influenced by the way institutions are evaluated as well as the institution's policies. A well-defined scheme and well-defined indicators are needed for the evaluation process. Often the social relationships created by students affect the successful implementation of group work, which is claimed to be carried out willingly in only 60% of the surveyed. Often this choice is teacher-oriented, or mentor-oriented and the level of motivation expressed in taking responsibility for its performance. For the student to take responsibility for his acquisition, must possess the skills of the independent task. To achieve this goal, the teacher exercises the students individually, in small groups, and then with the whole class (Lane, 2007). Often in the Lower Level of studies teachers encourage individual work.

b) Most of your tasks are:

- a. Individual
- b. In group

c) You conduct your tasks willingly:

- a. individually
- b. In the group

Measurements show that 52% prefer to work in the auditorium, 19% in the library, 29% out of the auditorium. The auditorium is regarded as a suitable work environment, while many students claim to alternate all three environments for the successful completion of their tasks. The most efficient application technique is the *research project* and the *case study* method where students share their findings and conclusions. In the field of education, the project concept means the activity of an individual or group that involves investigating and solving problems. The project is planned and completed by this individual or group of students under the guidance of the Lecturer. Students find the research project independently or even as a member of a group, investigate a particular case, and then report on that matter as a more efficient technique.

1. The Case study method. The study of a case is a special kind of study method, which insists on a detailed study of a particular circumstance. This includes the following steps:

- a) Define a topic or problem to investigate.
- b) Identify, collect, and prepare the appropriate materials for the in-depth case study.

You should start the research with an introduction, which helps students understand the problem.

d) You conduct your tasks willingly:

- a) In the auditorium, classroom
- b) Out of the auditorium, classroom
- c) In the library

In individual tasks students encounter difficulties: The results show that 74% of surveyed encounter some difficulties in individual tasks and only 7% of them claim to never encounter difficulties. From investigations and assessments of students' tasks it turns out that students who never encounter difficulties never reach the maximum level of assessment, and their inquiry process is not entirely feasible. 10% of the students claim that they often encounter serious difficulties in individual work, and this category is very interactive and motivating in group work.

- | | |
|-----------|-----------|
| a. often | c. never |
| b. Rarely | d. always |

1. When you encounter difficulties in inquiry, you address: 41% of them are addressed to the mentor, supervisor, 30% of previous texts, 20% of literature, 8% of colleagues. This weakens the role of group work and encourages individual work. In fact, in the research process, the role of the mentor is multiple.

The role of the teacher/mentor during inquiry learning.

Applying independent research work is a pedagogical practice that transfers and delegates learning responsibilities from teacher to student. (PRIMAS, 2013). The role of the teacher in inquiry learning is its leadership and supervision or guide in the learning process. During inquiry-based teaching (IBT) researchers, lecturers, teachers keep in mind that:

- support and accept students' opinions,
- highlight what is positive,
- instruct by suggesting,
- promote the exchange of ideas,
- accept consistent hypotheses,
- promote free debate and open discussions in the auditorium /classroom,
- encourage students to think as accurately as possible about the problems they are inquiring,
- Free students of fear of what they're thinking or not being in line with what was expected.

The above classification shows that students are inclined to discuss previous work with their supervisors, mentors, but also their orientation in previous texts is significant, as students can go back to the processes of previous knowledge through research questions and literature as well.

- a. Teachers / mentor / lecturer
- b. Literature

- c. Previous texts
- d. Classmates

e) You encounter difficulties working in groups:

22 % e of the surveyed claim they rarely encounter difficulties in group work and 55 % often encounter difficulties in group work. The nature of these tasks also requires social and environmental cooperation, and when groups are large this inhibits work.

- | | |
|-----------|-----------|
| a. often | c. never |
| b. Rarely | d. always |

f) Difficulties refer to:

Students face difficulties dealing with and constructing their tasks. From the analysis of the questionnaire, Albanian students claim that 46% encounter difficulties in finding literature, and 30% collaboration with colleagues. It is obvious that in Albanian reality we have a lack of online libraries and very good relations with colleagues are needed for the efficiency of research work.

- a. Understanding the topic
- b. Collaboration with colleagues
- c. Finding literature
- d. Use of technology

g). In inquiry you use the verbs:

Albanian students are oriented to the research stages and use all verbs according to levels define, observe, describe, identify, classify that help in full Inquiry. Almost the ratio of their use is in direct proportion, and this helps them to successfully carry out their research work and projects.

6. Conclusions

In addition to the high motivation of students, one of the main reasons IBL is referred to today is because it affects the active involvement of students in the learning process. Facing students with a challenging question allows them to reflect on their acquisition, develop imagination, bring experiences, and activate logical thinking, critical thinking in solving the problem posed. In this process, students investigate different sources, get opinions on different references. The effectiveness of the application of independent work depends on several factors influencing this process.

Based on the analysis of our findings we conclude that the research method can be successfully applied in the social sciences and all cycles of studies. This method is applied successfully and is effective in group work, where students are encouraged and motivated through collaboration and taking responsibility. At the university level, encouraged not only by age but also by formation, the research method interacts and reaches the highest level between the categorization of concepts and their classification.

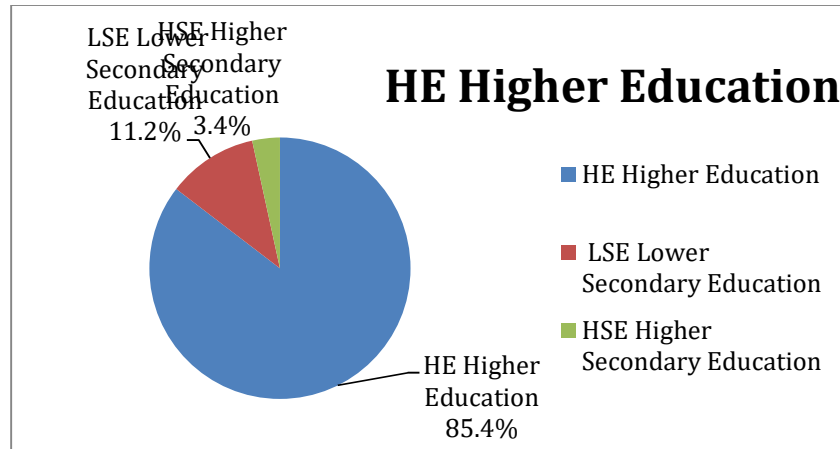
Limitations of the study

In Albanian reality, it is still difficult to transfer the research environment outside the auditorium, which in fact inhibits the student towards completely independent works and especially group works, which require necessary monitoring by teachers, whether in laboratories or test environments. while in the social sciences the research character has a more individual character.

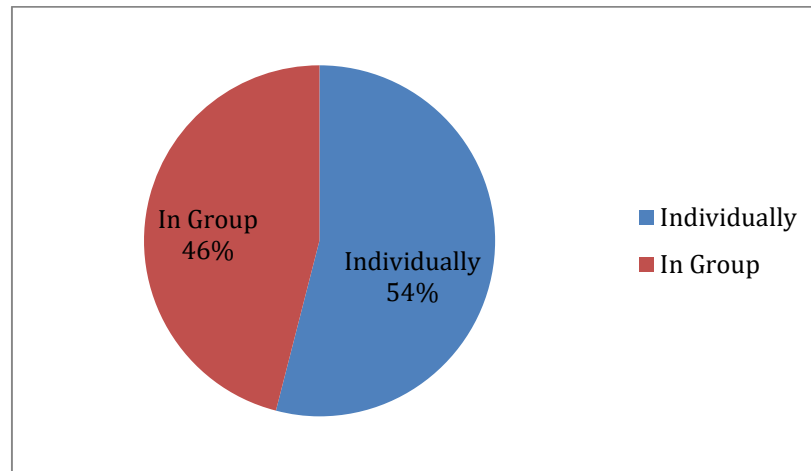
Appendix / Questionnaire

The questionnaire shows that 49.4% prefer to work in the auditorium, 20,4% in the library, 30.1% out of the auditorium.

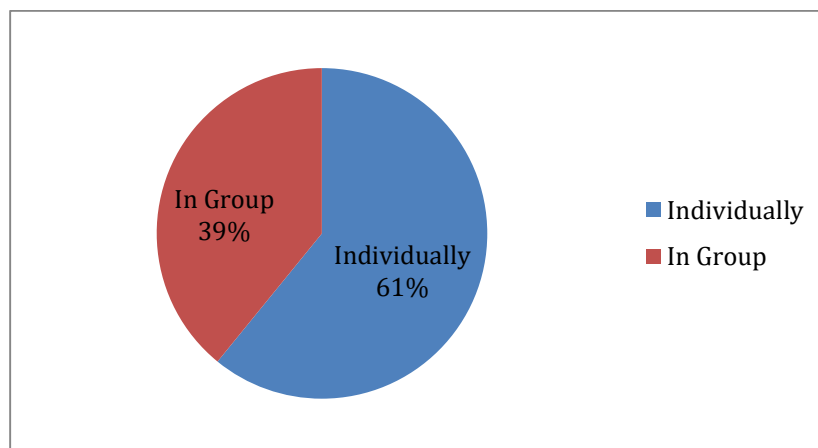
9.Circle your level of Study:



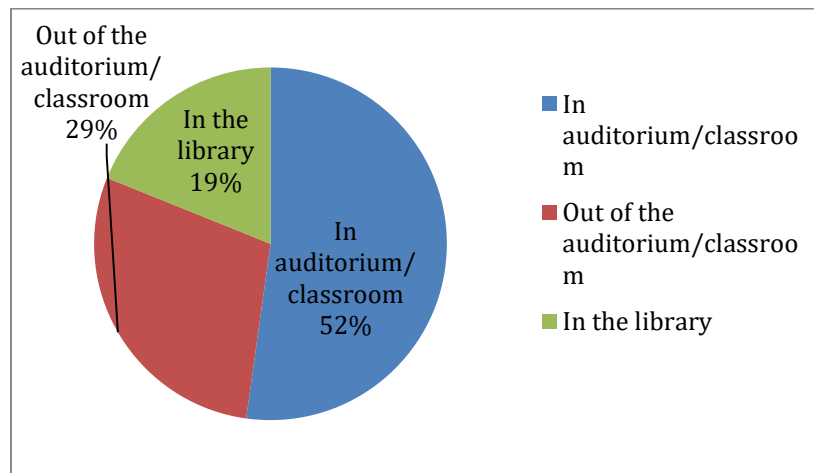
1. Your questions are mostly individual:



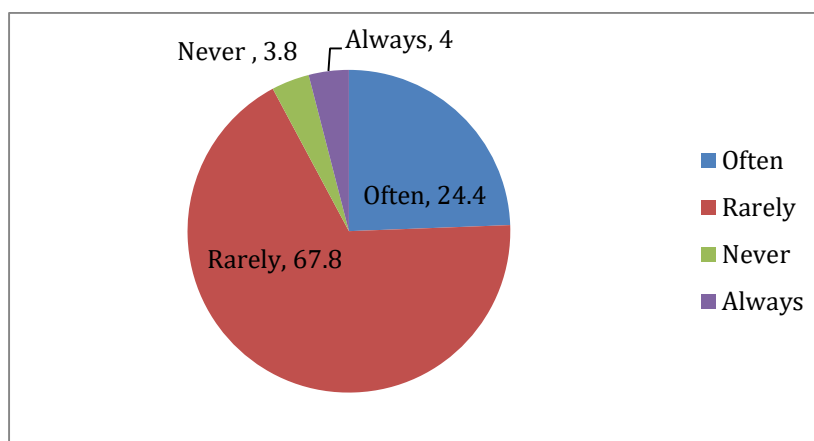
2. You realize your tasks willingly:



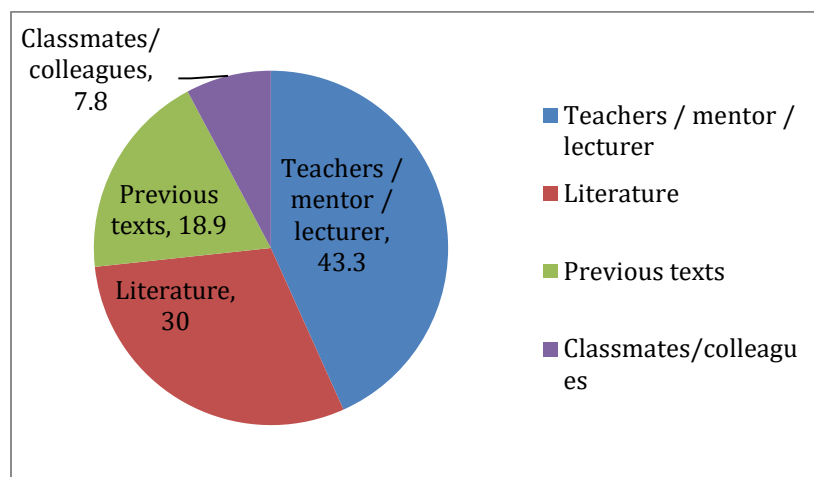
3. You realize your tasks willingly:



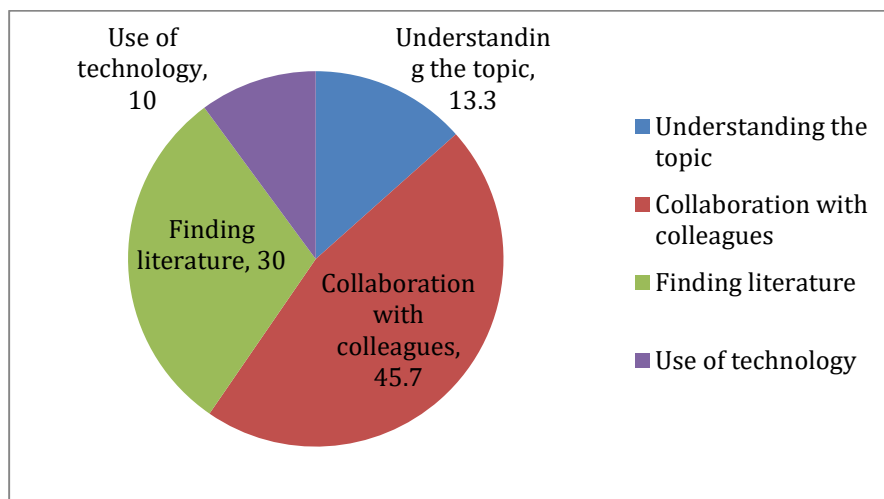
4. You face difficulty during individual tasks:



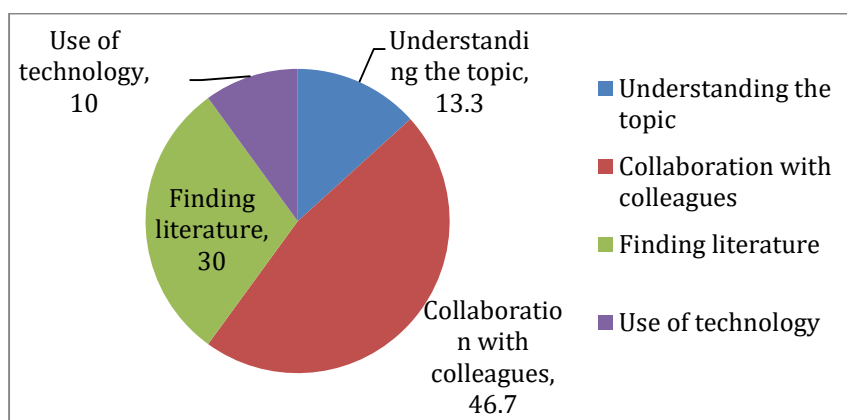
5. Where you encounter inquiry difficulties you address:



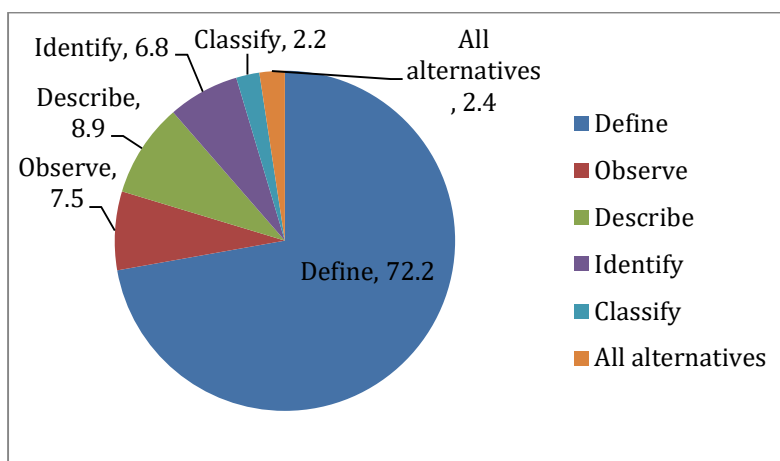
6. In group work you face difficulty:



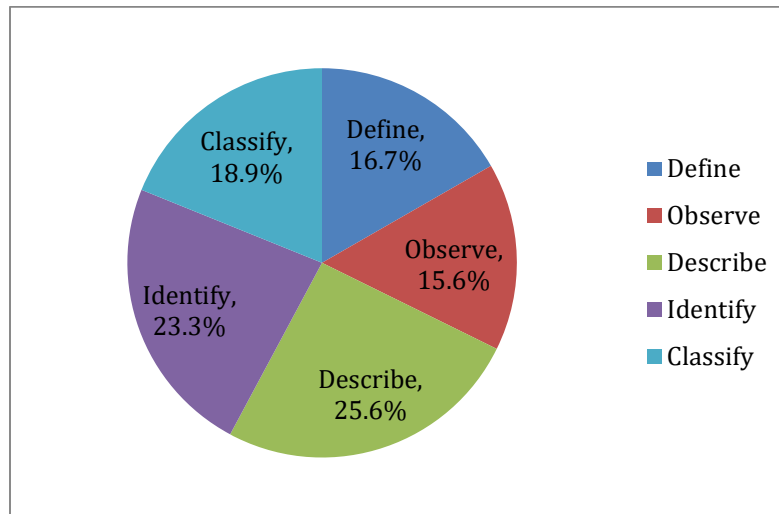
7. Difficulties refer to:



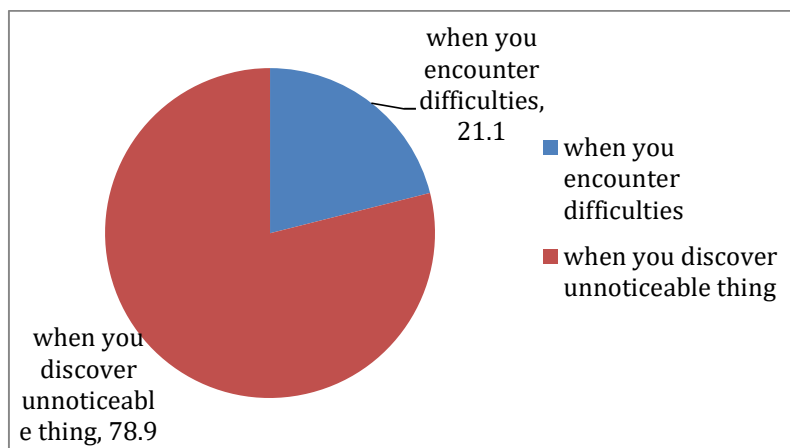
8. In inquiry you use the verbs



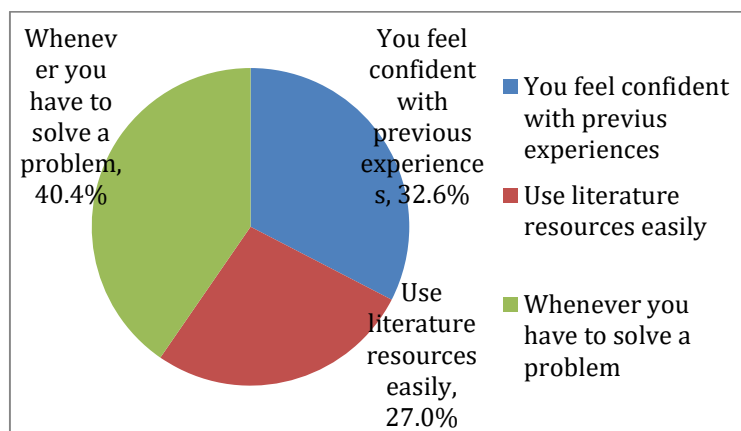
9. Which of the verbs do you mostly use



10. You use the verbs define, observe, describe, identify, classify in inquiry:



11. Circle the incorrect answer: You raise a hypotheses when



10. Bibliography

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