

Perceptions of objective formative assessment in language learning Percepciones de la evaluación formativa en el aprendizaje de idiomas

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Abstract:

The objective of this research report is to describe the significant role that objective formative assessment plays in learning a language. In order to do this, the information and data are displayed to prove whether the use of objective formative assessment is an appropriate way to increase language learning. Data was collected by means of a questionnaire that elicited individuals' perceptions of exams, mid-term exams, short-practice-exams / quizzes, self-evaluations, and exercises with scores.

The frequency statistical test was used to measure the individuals' levels of approval. The Likert scale was used to collect the perceptions of the subjects. The graphics, the median, and the mode were calculated to prove the tendency, since this was a non-parametric test and the scales were ordinal. Sampling was random and 117 participants were selected from a total population of 500. They were all undergraduate students from Veracruz who have been studying English at the Language Center in Xalapa. All of them have been studying English for more than one year. Results showed that individuals perceive that objective summative assessment is not the best way to learn. On the contrary, individuals perceived that objective formative assessment was better to help to learn languages. Mock examinations and quizzes, as well as exercises, were preferable. Implementations of objective formative assessment activities could be a strategy for improving learning, lower the stress, and prepare students for real objective summative examinations.

Keywords:

Linguistics, language teaching, learning, formative assessment

Resumen:

El objetivo de este reporte de investigación es describir el papel que juega la evaluación formativa objetiva en el aprendizaje de un idioma. El proceso se llevó a cabo mediante la exposición de los datos para demostrar que el uso de la evaluación formativa objetiva se le percibe como una manera apropiada para incrementar el aprendizaje de lenguas. Los datos se recolectaron con un cuestionario que recaudó la percepción de los individuos sobre los exámenes finales, los exámenes parciales, los exámenes cortos, las autoevaluaciones y los ejercicios con puntaje. Se utilizó una escala de Likert para recaudar la percepción de los encuestados. Se realizó el análisis estadístico de índice de frecuencia. Debido a que es un estudio no-experimental y su escala es ordinal, no se utilizó la media como indicador de frecuencia por ser una prueba paramétrica. Por lo tanto, las gráficas de área fueron utilizadas en conjunto con la mediana y la moda para confirmar la frecuencia de los datos. Se seleccionó la muestra de 117 sujetos al azar de una población total de 500, los cuales habían estudiado en el Centro de Idiomas – Xalapa. Todos habían estudiado inglés más de un año. Los individuos percibieron que la evaluación formativa objetiva es mejor para aprender inglés. Prefieren el uso de simuladores de exámenes, exámenes cortos y ejercicios con puntaje. La implementación de actividades de evaluación formativa objetiva puede ser una estrategia para mejorar el aprendizaje, disminuir el estrés y preparar a los estudiantes para pruebas objetivas de evaluación sumativa.

Palabras Clave:

Lingüística, enseñanza de idiomas, aprendizaje, evaluación formativa

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INTRODUCTION

Teaching languages is considered to constitute continuous training in strategies for developing skills that learners require to communicate effectively and creating opportunities to interact with others. Hence, teachers are involved in a typical process of promoting, supporting, constructing, collecting data on, and evaluating learners' production. Summative and formative assessments are key elements in the gathering of information about students' level of achievement. Summative assessments are those that are given periodically, to determine at a moment of the learning process what students know and do not know.

Summative assessments are often associated with standardized tests such as state assessments that occur after instruction every few weeks, months, or once a year. They help to evaluate the effectiveness of programs, school improvement goals, alignment of curriculum, or student placement in specific programs (Harlem and James, 2006). There are some specific modes of assessing students in formative and summative assessment. A proposal from Kharbach (2020) is displayed below in figure 1.

Formative is used to check the student understanding and to plan subsequent instruction.	Summative assessment of learning provides teachers and students with information about the attainment of content knowledge
The information gained from formative assessments guides the next step in instruction and helps teachers and students consider the additional learning opportunities needed to ensure success.	Summative assessments often result in grades that have a high point value.
Formative Assessment information provides feedback for learning process and instructional design.	The goal of summative assessment is to evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark.
Formative assessments include: Journal entries Discussion board posts Quizzes Spot check questions	Summative assessments include: Final speech or presentation Final project Midterm exams Final research paper

Figure 1: A proposal comparison formative and summative assessment table by Med Kharbach.

Unfortunately, summative assessment fails to provide information at the classroom level and, therefore, to support instructional adjustments and interventions during the learning process. It takes formative assessment to accomplish this. Formative assessment is part of the instructional process. When incorporated into classroom practice, it provides the information needed to adjust teaching and learning while they are happening.

“Formative assessment informs both teachers and students

about student understanding at a point when timely adjustments can be made. These adjustments help students achieve their learning goals” (Garrison and Ehringhaus, 2007). Therefore, summative and formative assessments are “formal (standardized) or informal (classroom-based). Informally, assessment provides feedback from peers and others with formative assessment” (Egbert, 2018, p. 161). Both types of assessment are an integral part of students' evaluation. However, the main problem related to evaluation is the way the results of the evaluation are used, especially in the case of the objective tests, since they are usually said to have a backwash effect on students. It is supposed that testing is an appropriate way to measure the students' advancement and provide a pedagogical moment to give feedback and reinforce content. There should not be a negative backwash effect. However, there is no certainty regarding how the teachers use the summative objective assessment or how well-trained they are to be aware of the advantages of giving feedback and making students reflect on their mistakes. Furthermore, most teachers support the idea that summative evaluation must be given a greater value in the overall assessment of performance on the course, rather than finding a balance and using objective tests for both formative and summative assessments. It is very well known that both play an important role in the English learning process but formative assessment (especially objective formative assessment) is sometimes underestimated by some teachers who prefer objective results with formal testing modes (objective summative assessment). The variety of teaching intentions to create assessment actions is endless and it is understood that short and informal tests or exercises with scores are also part of in-progress assessment that are valid for assessing progress, especially formative assessment, in which “[b]oth washback and face validities are enhanced when assessment and learning are interwoven in formative assessment” (Vandergrift & Goh, 2012, p. 264).

The concept for perceiving formative assessment as an action which is preferable to summative assessment is not conceived in an education system that is focused on testing to measure the performance. “In a situation where learning is seen as the memorization of facts to be tested by an end-of-year examination, for example, the introduction of formative assessment would be seen as an innovation”(Yeo, 2014, p. 5).

However, there have been many changes and the perception of training is evolving, especially of the way to deliver education to the masses, therefore, objective formative assessment could be used as a strategy for creating appropriate learning environments and setting up significant activities to consolidate learning content. Yeo stated that “[f]ormative assessment is also based on the fact that it is always student-centered, as it tries to incorporate learners'

concerns in the teaching/learning process” (Yeo, 2014, p. 39)".

Hence, perceptions of training are changing, and formative evaluation is becoming more significant for learners who have just developed a high level of learning independence with the use of formative assessment learning activities. Watkins stated that “[a]n emphasis on test performance is unlikely to promote effective learning as it does not encourage activity, collaboration and independence from the teacher and does not allow time for learning about learning”(Watkins et al, 2007, p. 47) Precisely all those individuals who were exposed to different learning environments have learned significantly on their own and particularly when they have been exposed to learning tasks that are focused essentially on formative assessment for improving learning. In this report, we focused on the perceptions that individuals students have on the effect that objective formative and summative assessment have on improving language learning. Some conceptual variables, such as self-confidence, independence, exam misconceptions, and the way an objective summative assessment test is conducted, may be indirectly involved. However, the purpose here was to collect and describe the perceptions of both summative and formative assessment tests and provide a scientific reflection on it.

RATIONALE

Throughout my teaching practice at the Language Center in Xalapa, I have noticed students' concern when they are about to present an exam or a very alike testing exercise, which looks similar to an exam. Quite the contrary, when they are doing an exercise or a quiz that implies challenging, motivation for learning, or just ludic satisfaction, their behavior changes, and switches from a negative into a positive attitude. Considering the above, it is fair to assume that objective formative assessment might be an appropriate strategy for improving learning, lowering the level of stress, and possibly increasing self-confidence in relation to objective evaluation (testing). It is said that the "built-in washback element of formative assessment can also reduce anxiety because the assessment is a regular part of the learning process"(Vandergrift & Goh, 2012, p. 264). However, the learning process involves the awareness of your learning and some other factors which are also meaningful for the learner. The most important action in the study was to collect student perceptions of the effects of formative and summative assessments employing objective tests. To analyze this data, objective statistical testing was used to test our hypothesis (stated below). The total population for this statistical test included a significant proportion of the universe of English learners in the context, namely, university students who have been studying English and other types of learners in different locations in the state of Veracruz, Mexico.

Quantitative methodology, more specifically, the non-

experimental descriptive method, can show how significant the students' perceptions are with regard to learning with objective and subjective assessment. Furthermore, appropriate criteria for analysis of the objective summative tests themselves remain debatable in terms of the complete process of administering an exam, and could include such aspects as: exam content, design, the exam, piloting, administration, grading, and, finally, giving feedback and analyzing mistakes with students. The feedback stage should provide an opportunity for growth and learning, not a way to judge and point out mistakes harshly. "When teachers are told to get pupils to perform to high standards (as opposed to being told to help them learn) they become more controlling and give more directive critical feedback" (Watkins et al., 2007, p. 105). The latter process could make the difference between a negative or positive backwash effect.

METHODOLOGY

This was a non-experimental quantitative piece of research in which we collected and analyzed individuals' perceptions of objective summative evaluation and objective formative evaluation. The overarching research question was: Is objective formative evaluation more appropriate for developing language learning than objective summative evaluation? The hypothesis was stated as follows:

H0. There is no significant tendency to show that objective formative assessment is perceived by participants as better for learning languages than objective summative assessment.

H1. There is a significant tendency to show that objective formative assessment is perceived by participants as better for learning languages than objective summative assessment.

RESEARCH OBJECTIVE.

To find out about the perceptions of the subjects involved in language learning regarding the effectiveness of objective formative assessment and objective summative assessment for learning languages.

The sample includes a total of 117 learners who were selected randomly from a total of 500. To collect the data a questionnaire was designed. The Likert scale (1 – 5 points) was used. There was only one item that asked respondents to rank from first to fifth place among the five criteria covered in the research. The statistical procedure involved collecting the data from an electronic questionnaire which was answered in Google Forms. A calculation was made to ascertain the appropriate sample size for the population, in accordance with statistical conventions.

Calculating Sample for finite population

Sample Size:	117	
Population Size:	500	
ERROR FOR 95% Confidence Level	7.9%	Margin of error
ERROR PARA 97% Confidence Level	8.8%	Margin of error

Figure 2: The sample was appropriate for the intended statistical analysis.

As can be seen in figure 2, the margin error test conducted to this sample (117) with a 95% of confidence level showed only 7.9 margin error. Hence, the test result demonstrates that the sample is consistent for a non-parametric statistical analysis. We may conclude that the size of the sample in relation to the total universe was sufficiently large to ensure reliability of data collected based on the statements included in the questionnaire. Each item provides an ordinal scale from 1 to 5 (Likert scale). As this was an ordinal scale, the statistical test was a nonparametric one. The data were analyzed using a frequency test and the results were interpreted according to the frequency parameter 0-100 to revise the response mean. However, the conclusions were drawn mainly from two main factors: the mode and the most frequently occurring number (Harpe, 2015, p. 843). Additionally, after describing and interpreting the results some conclusions are described to recover the use of the data collected, and the expert's perceptions of the use of formative evaluation for learning.

RESULTS

The first datum to be examined was individual participant learning experience. As this was a varied and random sample, experience in learning languages should be almost equal. As can be seen in Figure 3, the median was 3 years, suggesting a varied sample, in which most of the participants have more than two years of experience in learning a language.

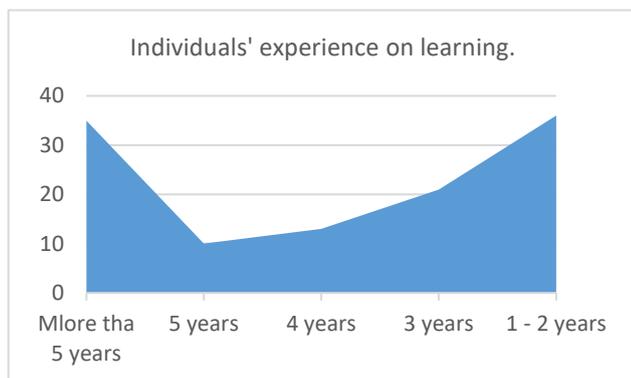


Figure 3: Individuals' experience in learning languages. Median: more than 2 years

For the questionnaire items, the ordinal scales were set as follows: 1= Totally agree, 2= Agree a little, 3= Neutral opinion, 4= A little disagree and 5= Totally disagree. The data was interpreted using the median and the mode tests, since this was not a parametric scale, and the variables were ordinal, and no math testing was relevant (Darío Echevarría, 2016, p.52). Furthermore, the mean would represent biased information and parametric testing would be unreliable in this

case. In conclusion, the linear graph and the median and mode supported the results (Harpe, 2015, pp. 839-840).

FIRST SECTION

PERCEPTIONS OF OBJECTIVE SUMMATIVE ASSESSMENT AND OBJECTIVE FORMATIVE ASSESSMENT

The second set of data was related to the perceptions of the individuals concerning the exams currently used for objective summative assessment and the backwash effect on students.

The statement was: *When you do an exam that has a value in your evaluation you are affected in a negative way for learning a language.*

The data showed that participants felt they were slightly affected in the learning process. The median score was 3 (Neutral opinion) and the mode was 4 (Agree a little). This small tendency can be seen in Figure 4.

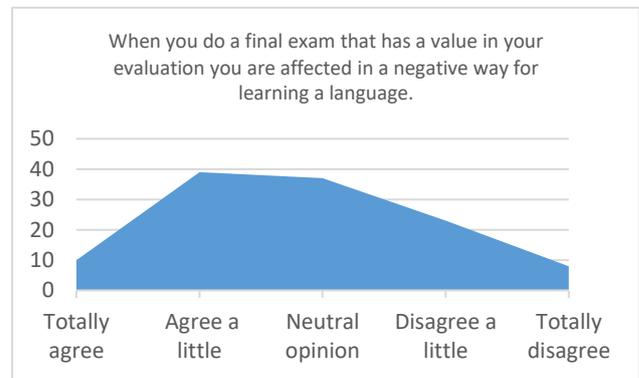


Figure 4: Individuals' perception of how final exams affect their performance when learning English.

There was a slight tendency showing that subjects perceived a negative effect on the final exams. The second question was focused on the partial exams (progress tests), in the form of Objective summative evaluation. Figure 5 shows that there was a tendency for subjects to select "Agree a little". The median suggests a neutral opinion. However, the mode was 4 (Agree a little). More people, then, perceived the partial exam as a factor affecting their language learning.

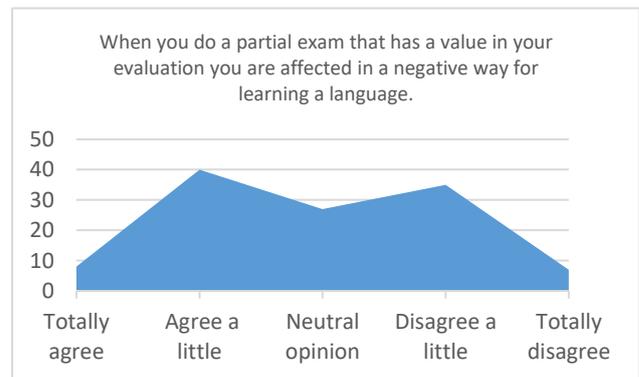


Figure 5: The individuals' perception of how partial exams affect their performance when learning English.

Another statement to be analyzed was this: When you do a quiz or a short exam that has little value in your evaluation you are affected in a negative way for learning a language. Illustration No 6 shows that the tendency focuses on 2 "Disagree a little". The median and the mode was 2 (Disagree a little). It can be demonstrated that subjects perceive no risk of being affected in language learning by the quizzes or short exams.

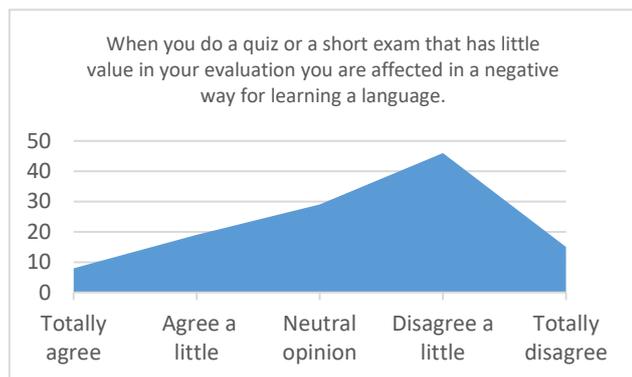


Figure 6: Individuals' perception of how quizzes or short exams affect their performance when learning English.

The next statement was designed to collect data on individuals' perceptions regarding self-evaluation: When you do a self-assessment test to measure your learning and has no value in your evaluation you are affected in a negative way for learning a language.

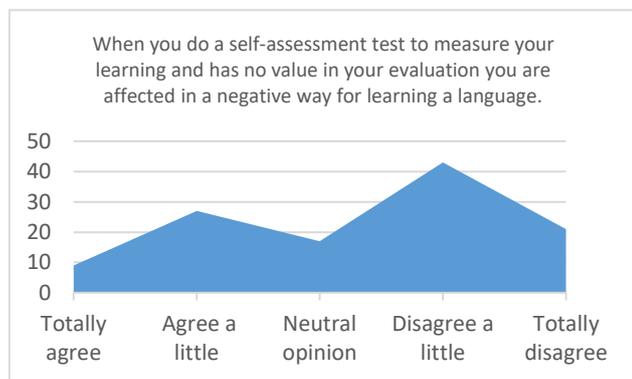


Figure 7: Individuals' perception of how self-assessment tests affect their performance when learning English.

The responses for this statement were very similar to those for the previous statement related to quizzes and short exams. Figure 7 shows that there was a tendency to select Option 2, "Disagree a little" and the median and mode were also 2 (Disagree a little). Participants thus perceive that self-assessment tests did not negatively affect their learning process.

The next statement has to do with the perception of exercises

with scores. This refers to the simulation of a testing process (mock tests). The statement was: When you do an exercise for practicing that gives you the score at the end and has no value in your evaluation you are affected in a negative way for learning a language.



Figure 8: Individuals' perception of how exercises with scores at the end of it affect their performance when learning English.

As can be seen in Figure 8, there is a tendency towards disagreement with the statement. The median and the mode were 2 (Disagree a little). It is sufficiently clear that individuals thought that there was no negative effect on the learning process from exercises for practicing and checking the scores.

The conclusions for this first section involve a significant assumption regarding the effect of objective summative assessment. Apparently, the negative backwash effect has been experienced by many individuals who considered that objective tests negatively affect learning a language. On the contrary, simulating tests, quizzes, self-assessment, and exercises with scores give them more confidence in learning a language.

SECOND SECTION PERCEPTIONS OF OBJECTIVE SUMMATIVE ASSESSMENT AND OBJECTIVE FORMATIVE ASSESSMENT

This section analyzes the data concerning individuals' perceptions of the most appropriate types of objective assessment: Summative and formative assessment. The intention of the following section was to collect and describe the appropriate data to determine preferred types of assessment activities. The same order was followed so that individuals could be instructed correctly and to make sure that the options and the statements were clear.

The first statement says: I have learned the most when I do final exams. As is evident from Figure 9, there was a tendency

toward disagreement. The median was 3 (Neutral opinion), but the mode was 2 (Disagree a little).

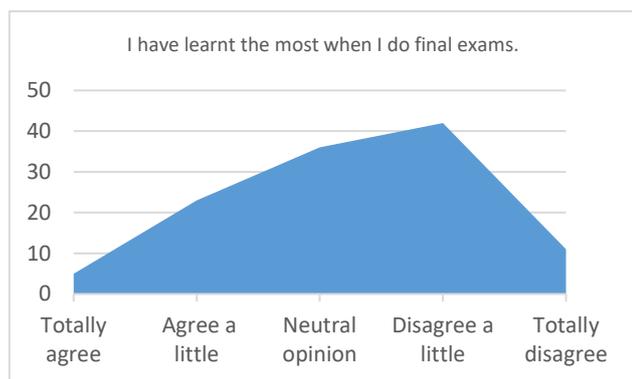


Figure 9: Individuals' perception of the stamen: The final exam is the best way to learn English.

The next statement intended to collect data on opinions regarding the partial exams (progress tests). The statement says: *I have learnt the most when I do partial exams.* In Figure 10, there was a tendency to select Option 4 "Agree a little". The median and the mode are also 4 "Agree a little". This shows a tendency for individuals to have felt that learning can take place when they were doing partial exams.

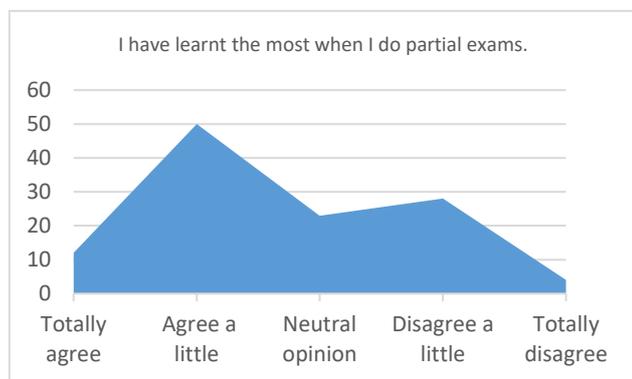


Figure 10: Individuals' perception of the stamen: The partial exam is the best way to learn English.

For the following statements individuals demonstrated more agreement with positive effects of objective formative assessment. The first related to quizzes or short exams. The statement was: *I have learnt the most when I do quizzes or short exams.*

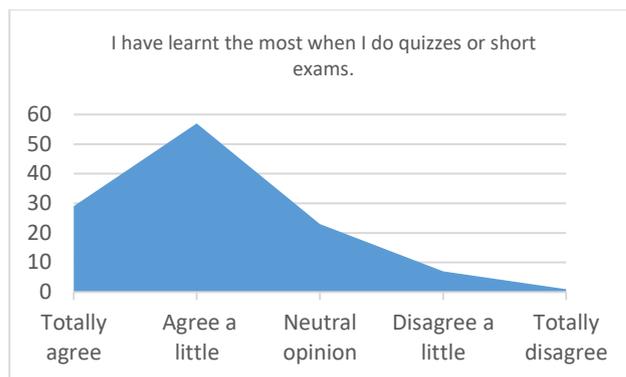


Figure 11: Individuals' perception of the stamen: The quizzes or short exams are the best way to learn English.

The tendency was very clear and shows a preference for Option 4 "Agree a little". Furthermore, the median and the mode were also 4. If Figures 10 and 11 are compared, a meaningful difference in the tendency can be noticed. A similar result was found with the following statement: *I have learnt the most when I do self-evaluations.*

In Figure 12, we can see from the graphs that the tendency was completely significant, and it can be observed that participants considered that objective formative assessment was preferable. The median and the mode were 4 ("Agree a little"), but a more significant tendency can be noted in Figure 12. A significant tendency was observed on the statement related to the self-evaluations. It may be possible that learners feel the environment more appropriate for learning when they do not feel they are being assessed with summative assessment.

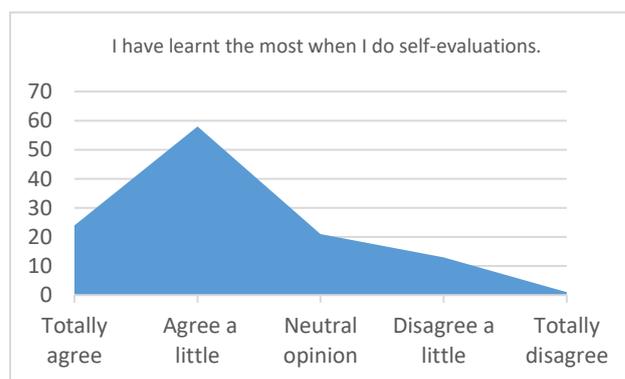


Figure 12: Individuals' perception of the stamen: The self-evaluations are the best way to learn English.

There was also a very similar result for the statement concerning exercises with scores: *I have learnt the most when I do exercises with scores.* In Figure 13, a strong tendency toward "Agree a little" was observed. The median and the mode were 4 (Agree a little), but the graph shows a strong tendency on the left-hand side.



Figure 13: Individuals' perception of the statement: I have learnt the most when I do exercises with scores.

Finally, the participants were asked to prioritize a place for each type of assessment activity, from first to fifth place, according to their preference for the best way to learn a language. Individuals put Exercises with scores in the first place, self-evaluations in second place, quizzes in third place, the partial exams in fourth place and exams in the first place (See Figure 14).

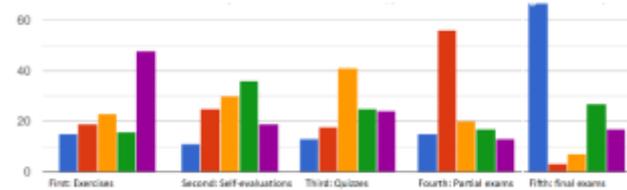


Figure 14: Perceptions of the priority to learn with summative or formative testing for learning.

If we compare the two sections of statistical analysis, we can conclude that the responses were in accordance. All tendencies are in favor of the objective formative assessment activities.

ACCEPTING AND REJECTING HYPOTHESIS

H0. There is no significant tendency to show that objective formative assessment is better for learning languages than objective summative assessment according to learner's perceptions.

REJECTED

The results show that the null hypothesis is completely unsupported by the data collected. The statistical results show no significant tendency for the null hypothesis.

The results show that the null hypothesis is completely unsupported by the data collected. The statistical results show no significant tendency supporting the null hypothesis.

This result was not considered to be sufficiently conclusive to confirm that objective formative assessment is not appropriate for implementing during a foreign language course.

Furthermore, the results show that a specific sample of learners from a particular learning context does not perceive objective summative assessment to be the most supportive process for learning a language. This information is very valuable in the decision-making process regarding the way in which summative evaluation is currently being conducted at this language center.

H1. There is a significant tendency to show that objective formative assessment is better for learning languages than objective summative assessment.

ACCEPTED

Mostly all the results show a significant and constant tendency for the research participants to believe that formative assessment is better as a support for learning languages than summative assessment.

As mentioned in the previous section in relation to the null hypothesis, it must be insisted that this result does not constitute a definitive judgment against objective summative evaluation. The most valuable result is found in the individuals' perceptions, which reveal a strong tendency in relation to objective summative assessment as the best support in learning a foreign language. This perception does not question summative evaluation or see it as an incorrect process for learning a language but shows that subjects find formative assessment more improving for learning. Thus, the specific details to find out why they perceive that may be a result of the ways in which objective summative evaluation is currently carried out, of negative past experience of this type of assessment on the part of the participants, of design issues related to the current objective summative assessment instruments, or other factors that may be affecting the achievement of the real purpose of the summative evaluation, which is sometimes conceived chiefly as a way to make decisions regarding whether or not to award a pass or not, to enable a learner to progress to the next level. Furthermore, some teachers and/or institutions are perhaps not sufficiently concerned about the feedback, reviewing, and specially negotiating of students' responses, to be aware of their real progress in learning.

CONCLUSION

As this is a specific study for a particular group of individuals, this research may only draw conclusions related to the findings from this specific group of participants and context. However, the results may be helpful in inspiring further observation, reflection and research on the subject of foreign language learners' attitudes towards formative and summative assessments. Furthermore, it could be valuable to analyze the nature of the backwash effect of the summative assessment tests and surrounding issues. It would also be appropriate for further research that compares the perceptions of two groups with different assessment strategies.

Summative assessment is sometimes used as the only way to assess students' learning, and there are some stressful situations for students when the course is more oriented towards objective summative assessment only, rather than aiming for a balance between summative and formative assessment. This is a very typical teaching strategy in the Mexican Higher Education context, where academic committees often prefer to put students under pressure to learn content and functions, rather than develop skills for effective communication in real situations, increase self-confidence, motivation to learn, and create opportunities and contexts to learn and develop self-awareness. Assessment tools that provide self-confidence, feedback and self-awareness are now more valuable for the learners who are interested in learning English for instrumental reasons, for improving their possibilities of travelling (for example, on student exchange programs, securing a better job or simply for ludic purposes.

Nowadays, learners are using a wider repertoire of resources to improve their language learning. Specifically, "[f]ormative assessment activities in the form of quizzes and scenarios are supported by a technology-enabled voting system to enable learners to check and develop their own understanding"(Committee JISC, 2005, p. 17). Hence, many more possibilities are now displayed and offered on the Web, on mobile applications and on the websites of freelancers and companies offering English with different perspectives which are focused essentially on developing learning by drilling, exercises, quizzes, self-evaluations and simulating situations. "This makes the consideration, analysis and design of effective, efficient and constructive feedback an essential component in the whole design process"(Bradley, Linda; Thouesny, 2012, p. 204). However, these objective assessment modes are not conceived as an appropriate way to prove the advancement of learners, since students can cheat on the tests. Thus, they are still thinking of objective formative assessment, through which students must always be controlled and directed. It must be considered that "the potential exists for students to observe other student responses before answering. Of course, academic integrity issues exist in almost every grading/testing environment; therefore, these concerns are not new to education" (Kidd & Keengwe, 2009, p. 113).

The results of this research do not try to criticize objective summative assessments. On the contrary, this type of test is appropriate for measuring learning, but the confusion about their purpose is sometimes what creates misconception, fear and perception learners have when they feel the unsuccessful learning process. For instance, the initial stages of needs analysis and course design are key moments for the conceptualization and inclusion of appropriate learning assessment modes, since "contextual importance of formative and summative evaluation conducts the decision on the use of the evaluation modes such as: face-to-face, online with or

without supervision"(Kidd & Keengwe, 2009, p. 97). Additionally, sometimes, the structure and design of assessment procedures are oriented towards the design of proficiency testing, imitating certification exams, rather than the pedagogical purposes of the language course, so the feedback provided for learners is sometimes limited or non-existent. This is an inappropriate strategy, as there should be feedback for learners, if the teacher believes in the process of learning by making mistakes and correcting them.

It is commonly known that objective summative assessments support teachers in making decisions concerning the level of language proficiency of their students. However, such reflection and awareness of the level is achieved only when the feedback is clear and transparent. Hence, the procedures for the implementation of objective summative assessment may be the key point in non-positive learner perceptions of this type of exams as a help in improving their learning. Further, "[f]ormative assessment activities in the form of quizzes and scenarios are supported by a technology-enabled voting system to enable learners to check and develop their own understanding"(Committee J.I.S., 2005, p. 17). However, any assessment tool must be revised and evaluated so that the content and the level are suitable for the learners. Assessment and evaluation are more manageable when the teacher has chosen the appropriate sites or resources and is familiar with the content (Murray et al., 2015).

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