Self-assessment: an Iterative and Continuous Process. The case of First Year Master Computer Science Students at Dr Moulay Tahar University-Saida, Algeria

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Abstract:

Self-assessment which has at last grounded itself as an effective strategy in EFL teaching/learning context requires more attention and care. In this vein, the present paper attempts to highlight assessment as a general issue then specifies to self-assessment as a specific concern. For data collection tools, two instruments have been used: a questionnaire was addressed to first year master students in the Computer science department at Dr Moulay Tahar university- Saida and a semi-structured interview was conducted with three English teachers from different departments. The gathered data has been analysed using both quantitative and qualitative approaches. The results revealed that though self-assessment is adopted as a strategy in teaching, teachers need training to be able to implement self-assessment effectively.

Key words: self-assessment, effective strategy, master students, training

1. Introduction

Assessment has long been a challenge in teaching English as a foreign language since it is considered as a key factor in enhancing the quality of teaching/learning process. Indeed, assessment has gained more attention from scholars and different definitions from different perspectives have been stated to highlight this term. As it is widely known that assessment is an integral part of language teaching, scholars, teachers and even policy makers seek to improve the effectiveness of its integration in evaluating students' learning achievements.

Accordingly, assessment main target is to uncover students' real level of proficiency yet teachers still use traditional methods which result in inadequate content and then subjective tests and exams.

Moreover, the appearance of learner-centred approach (within English for Specific Purposes henceforth ESP) which has improved good outcomes, has given birth to self-assessment as new trend in the land of assessment. As the target of this approach was to improve students' linguistic competency and professional knowledge, self-assessment aimed to enable students to be more responsible of their learning achievements. In fact, the present investigation seeks to shed light on self-assessment from two folds: firstly, teachers' difficulty in matter of what to assess, when to assess and how to assess. Second, students' awareness about the importance self-assessing themselves may play in improving their learning. In this sense, three research questions have been stated:

√ What is teacher's main target in applying self-assessment?

√ How does the teacher implement self-assessment in class?

√ What are students' attitudes when they assess themselves?

In accordance three hypotheses have been suggested:

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● Self-assessment which is a new trend within assessment aims firstly to fulfill teacher's objective in evaluating students' achievements and encourage students to be more responsible in their learning.

● Due to the progress of technology which has affected teaching methods, teachers ought to keep up with that development and adopt new and effective methods of assessment.

● Students in higher education differ from each other in matter of their attitudes towards any new way of learning. This means that some students may be motivated when assessing themselves while others may not and this depends on their level of language proficiency and interest.

2. Background Study

Assessment in its broad meaning is to evaluate learners' language competencies. In other words, it is to gather the needed data about learners' language ahievements and test their performance. In this sense, Airassan (1991) states that assessment is

> *« the process of gathering data about learning environment and making discussions to improve teaching and learning experiences ». Besides, Dudley-Evan and St John (1998) argue that assessment in ESP « focuses on language, skills and discourse of specific disciplines ».*

From another paerspective, Gibs argues that assessment is the most important aspect of students'academic life (Gibs, 2010). Moreover, it has been confirmed by some scholars such as Price, Caroll, O'Donovan and Rust that students who understand the assessment process may learn better than those who are unable to recognise how this process is managed (Price et al, 2011). Indeed, the main purpose of assessment is to evaluate what learners have learnt and whether the stated objectives have been met or not yet.

Besides, for more effective learning self-assessment is the key factor. In self-assessment, students are involved in both formative and summative tests (which make it a good strategy in

2.1. Type of Assessment

Actually, there are three main types of assessment , they are as follow :

√ **Diagnostic assessment/ Needs analysis :** this type of assessment ought to be conducted right from the beginning (before starting the teaching/learning process). It aims at identifying learners' actual level of profeciency and their future needs so that to decide about what to teach (the program) how to teach (the methods), when to teach (the timing) and where to teach (the setting). This assessment can be done through pre-test, discussion board responses and interviews

√ **Formative assessment/Ongoing assessment :** it is the process of getting continuous feedback during the instructional process. It is done after each teaching phase so as to evaluate the outcomes of that phase. It can be done through tasks, teacher's observation, questio/answer or homework.

√ **Summative assessment :** this type of assessment is performed at the end of a unit study to confirm that the final objectives are met. It is generally done through written exams
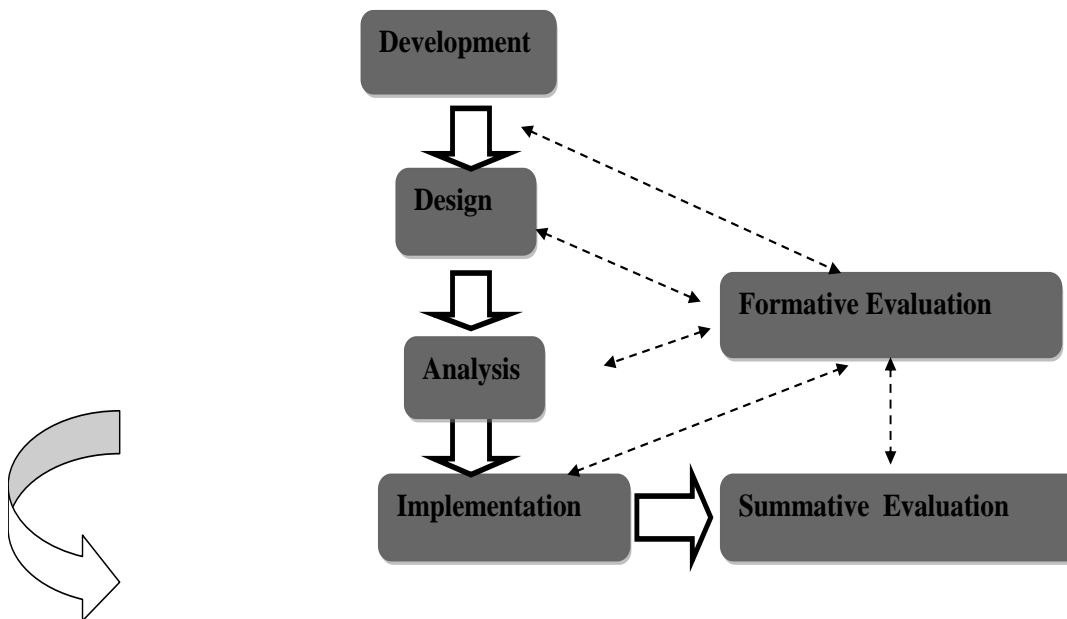
Figure 1: Formative and Summative Evaluation

2.2. Approaches to Assessment
Actually, there have been three main approaches that are adopted:

√ Assessment for learning aims at diagnosing learners' learning at different stages yet it is often informal and implicit.

√ Assessment as learning means students become assessors on their own i.e. they are autonomous as they monitor their learning and this type reflects the work in hand.

√ Assessment of learning is generally done at the end of term or semester as it is done for the sake of ranking and grading sudents

3. Research Methodology
The study in hand comprises, as has been mentioned before, a theoretical part and a practical one. Hence, a descriptive research has been adopted in order to have a clear insight as has been argued by Dorneyei; *"The purpose of a descriptive research is to examine a phenomenon that is occurring at a specific place(s) and time."* (Dorneyei, 2007).

As the work seeks to investigate self-assessment in an authentic setting, the analytic part was done in the computer science department at Dr Moulay Tahar university in Saida and the target population was first year master students as a case study. The students are split into three specialties: 17 students from MICR (Modelisation Informatique des Connaissance et de Resonement), 19 students from RIS (Resaux Informatique et Systemes Repartis) and 21 students from SIC (Securite Informatique et Cryptographie) with a total of 57 students.

For data collection instruments, a questionnaire was addressed to the target population (1st year master students) in addition to a semi-structured interview which was conducted with three teachers; the first is their English teacher who is an ESP teacher in addition to two other ESP teachers who are teaching in the political science department and English department. In order to the collect the needed data, both quantitative and qualitative approaches have been employed.

4. Data Analysis
4.1. Questionnaire Analysis

Actually, the questionnaire was addressed to 57 students who are first year master in the department of computer science at Dr Moulay Tahar university in Saida. It is important to mention that those students have studied English during their first year and second year licence according to the ministry canva and they are supposed to study English as a module in their first year master. Therefore, the respondents have already acquired a certain level of English proficiency.

Indeed, the questionnaire comprised three rubrics; the first rubric comprised two questions that concerned students' personal information so as to have a clear image about the respondents. The second rubric comprised five questions which were concerned with their English learning environment in matter of timing, setting, content and evaluation. The third rubric implied ten questions about assessment and self-assessment, this section aimed to uncover students' opinions, attitudes and suggestions concerning the way their works are assessed and whether they do self-assessment or not in addition to the advantages and disadvantages of this method from students' point of view.

4.1.1. Students' Personal Information

		MICR students	**RIS students**	**SIC students**
Gender	male	09	11	13
	female	08	08	08
Age	Less than 25	14	17	17
	More than 30	03	02	04

Table 01: Students' Personal Information

According to the table, among 17 students in MICR specialty there are 9 males and 8 females which means an equality in gender and this is due to the nature of future posts they may get after graduation i.e., all the work they are supposed to do is administrative. Besides, among 21 students in SIC specialty, only 8 are females with a percentage of % and 13 are males with a percentage of % and this is because their work would mainly be done outside the company, samething for RIS students, among whom 11 students are males with a percentage of 57.89 % and 8 are females with a percentage of 42.10 %.

Concerning the age of students in whole, among 57 students only 9 students are aged more than 35 with a percentage of   %. It is worth noticeable that those students are workers and their target is promotion at their workplace.

Indeed, the aim of this section is to have a clear image about the target population of the study in hand. Hence knowing the gender of students may indictes later on the extent at which students are interested and motivated in conducting self-assessment since female learners are generally more interested in learning foreign languages. Besides, knowing the age of students would show the extent at which students are objective in assessing themselves.

It is true that computer science students are split into three groups according to the specialties, yet in what follow the gathered data will analysed upon the whole respondents i.e., 57 students.

4.1.2. Stduents' English Learning Environment

	YES	%	NO	%
Is English timing appropriate ?	46	80.70%	11	19.29%
Is the English content suitable ?	50	87.71%	07	12.28%
Is teaching method appropriate ?	48	84.21%	09	15.78%
Are you satisfied with evaluation methods ?	52	91.22%	05	8.77%
Are you satisfied with your feedback ?	48	84.21%	09	15.78%

Table 02 : Students' English Language Environment

The second rubric of the questionnaire, which comprises five questions, aims to shed light on the atmosphere in which students study English. In other words, whether they are saisfied with their timing, program methods and ways their English teacher assess and evaluate their works.

As the indicates, among a total of 57 students in master one, 46 students with a percentage of 80.70% have claimed about timing. According to them, one hour and half per week is not enough to learn and improve their English competencies because most of the terminology they study in the other modules is in English in addition to some applications and systems which are still taught in English. Hence, the respondents have shown high interest in learning English as they have required for more timing.

A second question that was asked about their English program, 50 students with a percentage of 87.71% argued that it is suitable for them because it fullfil their needs and interests. It is worth noticeable to mention that their teacher is an ESP teacher which means he is supposed to design the program according to the needs analysis he has already conducted with the mat the beginning of the academic year. Therefore, the content of the English syllabus, according to the respondents, is appropriate whereas only 7 students with a percentage of 12.28% claimed that the program does not suit their needs because they have not studied English for years and they fin dit difficult to understand what their teacher teaches.

As far as the teaching method is concerned, 48 students with a percentage of 84.21% said that it is appropriate because they are all the time involved from conducting needs analysis, to course content and practice. Indeed, students have shown great interest in their teacher's way of teaching.

Coming to the focal point of the present investigation which is assessment, 52 respondent with a percentage of 91.22% have confirmed that they are satisfied with the methods their teacher adopts in his assessment because in exams and tests, their teacher evalutaes them whereas in quizes they are asked to do self-assessment. This is what students have already talked about « involvment ».

The next question which was about their feedback, 48 students with a percentage of 84.21% demonstrated their satisfaction with the results they gould get while 9 students with a percentage of 15.78% said that their grades are low. It is important to mention that those 9 students are workers and they have not studied English for many years that is why they fin dit difficult to catch the path with their mates.

To sum up, according to the repondents responses, the English environment in which they take part is satisfactory to most of them from their teacher's teaching methods and assessing techniques to the program except the timing about which the respondents have claimed and have asked for more than one hour and half per week. Therefore, the responses are encouraging the investigator to go forward and continue his study in order to tackle his target which is slef-assessment. Next, the third rubric of the questionnaire is presented in a table.

4.1.3. Students' Opinions about Self-assessment

	YES	%	NO	%
Do you do self -assessment ?	57	100%	00	00%
Do you like to assess your work ?	57	00%	00	00%
Are you given a schedule of evaluation ?	57	100%	00	00%
Do you like to assess yourself ?	45	78.94%	12	21.05%
Is it easy for you to assess yourself ?	45		12	
Do you do peer assessment ?	57	100%	00	00%
Do you agree that your mate assess es your work ?	30	52.63%	27	47.36%
Do you assess yourself in exams ?	00	00%	57	100%
Do you like to assess yourself in exams ?	20	35.08%	37	64.91%
Did you get low grades when you assessed yourself ?	15	26.31%	42	73.68%

Table 03: Students' attitudes towards Self -assessment

The third part of the questionnaire was devoted to students' attitudes towards doing self-assessment. This was done through asking them questions about their opinions in assessing themselves. This rubric comprised ten questions sequenced from general to specific. The first question to which the whole respondents answered with "yes" was about doing self-assessment. Hence, it can be understood that self-assessment is adopted by the teacher by a strategy in his teaching.

As for the second question which was more psychological, the respondents demonstrated great interest in doing self-assessment with their teacher with a percentage of 100%. Responding to question three, the students added that each time they do self-assessment, they are provided with a detailed a schedule in order to be guided and avoid bias.

For the fourth question which aimed to uncover their attitudes towards assessing themselves, 45 students responded "yes" with a percentage of 78.94% because, they said, it is an opportunity for them to learn more from their mistakes. Besides, 12 students with a percentage of 21.05% argued that they do not prefer to assess themselves because, according to them, it is their teacher's role moreover, they cannot be objective in their evaluation.

Another question was asked to the respondents. It aimed to shed light on students' ability to be assessors. Among the whole students, 45 argued that they find it easy when they assess themselves and this may indicate their good level of language proficiency because it is proved that a good learner may substitute all the roles from a student to a teacher.

For the next question, all the students have confirmed that they do peer correction in practice particularly when they do a general revision. Yet, 30 students with a percentage of 52.63% do not prefer peer assessment because they think that it is a matter of confidentiality and there is no need that a student assesses his/her mate.. It is, according to them, either the teacher or they themselves who are supposed to do the assessment .

Speaking about the exam, all the students confirmed that they do not do self-assessment in their final exams and this is so for some reasons that their teacher talked about during the interview.

However, when they were asked about their opinion 20 students with a percentage of 35.08% argued they would like to assess themselves in such exams because it is an opportunity to avoid the mistakes they make in further exams.

The last question aimed to test students' objectivity when doing self-assessment, asking them about whether they have had low grades in self-assessment 15 respondents with a percentage of 26.31% said that they sometimes get low marks particularly if the task is new for them or the questions are implicit.

Last but not least, From the data analysis above it can be understood that self-assessment has positive effects on learners' attitudes; it rather increase their awareness of responsibility in their learning. Indeed, playing both roles learner and assessor at the same time encourages the students to be more objective and increases their interest and involvement.

4.2. Interview Analysis

As has been mentioned before, a semi-structured interview that was conducted with three ESP E teachers, was the second data collection tool used in this study. Indeed, the interview has not been selected randomly it rather offers accurate results because of the authenticity of its setting. In this sense, Cohen, Manion & Morrison (2000:267) state

> *Interviews enable participants be they interviewers or interviewee to discuss their interpretations of the world in which they live and to express how they regard situations from their own point of view*

Moreover, as the present investigation is descriptive a semi-structured interview would be useful as it enable the interviewer to ask as many questions as possible and to guide the discussion freely as he can ask the interviewees for clarifications and explanations. In this vein, Corbetta (2003:270) argues that

> *The interviewer is free to conduct the conversation as he thinks to ask the questions he deems appropriate in the words he considers best to give explanations and ask for clarifications if the answer is not clear, to prompt the respondent to elucidate further if necessary and to establish his own style of conversation*

As far as the present study, the investigator has decided to conduct a semi-structured interview so as he can add more questions if there is a need to and as the interview comprises closed and open-ended questions, the interviewees would feel free to express themselves. The interview comprised eight questions. It lasted for half an hour and the responses were written down and recorded at the same time so that not to forget any detail.

●**Could you introduce yourself?**

The first interviewee said that he is an ESP teacher, he is graded doctor. As far as teaching is concerned, He has been teaching computer science students since 2015 and during this period he has made researches and could design a syllabus according to students' needs and he added that computer science students study technical English which means all what concerns the computer from hardware and software components, applications and systems.

For the second interviewee who is teaching ESP in the English department, said that she is a doctor and she has been teaching ESP for three years whereas the third interviewee; she has began teaching ESP in the political Science department since 2018. She added that according to the nature of students' needs which are mainly based on political repertoire she has designed a syllabus based on texts with a variety of tasks to study the texts taking into account the themes which fall in the field of political science.

●**What type of approach do you adopt in your teaching?**

The respondent argued that since he is teaching English for Specific Purposes then he adopts learner-centred approach. In other words, it is according to students' needs, wants and interest that

the teacher designs his courses content and even in his teaching, students are involved. The second interviewee confirmed that he adopts learner-centred approach too apart from the content that she selects for her students because students are generally not well knowledgeable in ESP that is why she does not involve students in the choice of the courses but they are involved in the preparation and discussion during the course.

The third teacher has claimed that he adopts the same approach except that students' involvement is limited in expressing their points of view.

●**What type of tasks do you integrate in assessing students?**

Since computer science students study technical English, the interviewee argued, that he integrates tasks that fulfill their technical knowledge such as turning a text into a diagram and vice versa, gap filling, sentence order to get a technical process, labeling parts of a figure …etc.

For English department students, assessment is mainly based on explaining, discussing or defining terms, phases and case studies. Besides, political science students are generally assessed on the terminology they acquire throughout their learning process and text study which comprises comprehension assessment and written production.

●**Do you do self-assessment with students?**

The first teacher confirmed that he usually asks students to do self-assessment. Yet, he has clarified that self-assessment is done just in quizzes and tests and sometimes in tasks. The second interviewee argued that it depends on the nature of the course, if it is a course of defining a phase or explaining a quote self-assessment would not serve students' learning achievements. In political science department, students assess themselves when it is matter of grammatical tasks such as combining sentences, word/sentence order, gap filling … etc.

●**How are their attitudes towards self-assessment?**

Generally speaking, students are interested in assessing themselves, the interviewees confirmed, particularly when they do it for the first time because it is a new experience for them and they feel that they are responsible. In other words, they substitute the role of their teachers as evaluators.

●**How often do you ask them to assess themselves?**

In fact, they assess their works when they practice or when they have a quiz or even when they do a general revision before exams. It means they may do self-assessment twice or three times a semester. The respondents assured that self-assessment is an effective strategy in improving students' English performance.

●**Do you ask them to do peer assessment?**

The first interviewee said that he has done it twice whereas the second interviewee argued that he has not done it so far because the courses that have been done so far are about introducing ESP through different scholars' perspectives. The third respondent confirmed that he has done it three times particularly in TD sessions.

●**How are their attitudes?**

In fact, students did not really like to do peer assessment, the interviewees claimed, because students are competitive in their learning and even in their assessment and no one prefers to be assessed by his/her mate. For that reason peer assessment is not really encouraging or interesting for students whereas self-assessment has proved good outcomes.

●**Are they objective when they assess their works?**

Indeed, this question, according to all respondents, is very important because it uncovers the dishonesty of some students. Actually, when students are informed that the grades they get after assessing themselves would count for the final exam, their grades are higher than their teacher's grades. Yet, while they are informed that grades would not count, their marks are equal with their teacher's marks. This demonstrates that they may be objective as they may not be which means that students are not always honest.

●**What do you suggest for more effectiveness in conducting self-assessment?**

By ending the interview, the first respondent was asked to give some suggestions among which he said that self-assessment is a good strategy in involving students in the teaching/learning process. It also helps students improve their English performance through learning from their mistakes and this way they would improve their learning not as learners but as evaluators. Yet, self-assessment ought not to be taken into consideration in evaluating learners officially.

According to the second interviewee, self-assessment is not so beneficial for students in the English department especially in the ESP module because the content itself does not require self-assessment. The third respondent confirmed that self-assessment would help students in their learning achievements particularly those who study in different faculties apart from the English department because it encourages students to be autonomous in their learning.

In short, the semi-structured interview that was conducted with the three ESP teachers completed what the questionnaire has gathered as information. The interviewees have provided more explanation and clarification to what the students have filled in their samples of questionnaires.

5. Conclusion

Last but not least, the present investigation was an attempt to investigate the effects of self-assessment on students' learning achievement. For this target, first year master students in the computer science department at Dr Moulay Tahar university-saida have been selected as a case study. In data collection, two instruments were used: a questionnaire that was addressed to the students in addition to a semi-structured interview that was conducted with three English teachers. For data analysis, both qualitative and quantitative approaches. The results revealed that computer science students do self-assessment. Indeed, their teacher adopts self-assessment as a strategy in order to enable them identify their weaknesses and help them improve their English performance particularly in written which is prior to oral.

As far as the students are concerned, they have shown remarkable interesting in doing self-assessment as they feel responsible and they are involved in the teaching/learning process. Therefore, the research questions that were stated at the beginning of this study are confirmed.

6. References

- Airasian, Peter W. (1991). Classroom assessment. New York: McGraw- Hill.

- Cohen, L., Manion, L. & Morrison, K. (2000). *Research methods in education* (5th ed.). London: Routledge.

- Corbetta, P. (2003:270). Social Research Theory. Methods and Techniques. SAGE.

- Dorneyer, Z. (2007). Research Methods in Applied Linguistics. Oxford: Oxford University Press.

- Gibbs, G 2010. *Using assessment to support student learning*, Met Press, Leeds, UK.

- Price, M, Carroll, J, O'Donovan, B & Rust, C (2011). If I was going there I wouldn't start from here: A critical commentary on current assessment practice. *Assessment & Evaluation in Higher Education*, vol. 36, no. 4, pp. 479-492.

7. Appendices

7.1. Questionnaire

I would be thankful if you respond to the following questionnaire, your answere will be anonymous (you can respond in English, French)

a. Rubric one : Tick the right column in the following table

	MICR students	RIS students	SIC students
I am a male			
I am a female			
I am less than 25 years old			
I am more than 30 years old			

b. Rubric two : fill in the following table and tick the right box

	YES	%	NO	%
Is the English course timing suitable ?				
Is the English content appropriate ?				
Is the English method appropriate ?				
Are you satisfied withthe evaluation method ?				
Are you satisfied with your feed back ?				

c. Rubric three : fill in the following table and tick the right box

	YES	%	NO	%
Do you do self-assessment ?				
Do you like to assess your work ?				
Are you provided with a schedule when you assess your works ?				
Is it useful for you when you assess your works ?				
Is it easy for you to assess yourself ?				
Do you do peer assessment ?				
Do you agree that your mate assesses your work ?				
Do you assess yourself in the final exams,				
Do you like to assess yourself in the final exams ?				
Did you get low grades when you assessed yourself ?				

7.2. Interview

I would be greateful if you devote some of your time to answer some questions concerning self-assessment.

●Could you introduce yourself ?

●What type of approach do you adopt in your teaching ?

●What type of tasks do you integrate in assessing the students ?

●Do you do self-assessment with your students ?

- How are their attitudes towards self-assessment ?

- How often do you ask them to assess themselves ?

- Do you ask them to do peer assessment ?

- How are their attitudes ?

- Are they objective when they assess their works ?

- What do you suggest for more effectiveness in conducting self-assessment ?