Assessment fairness and the different Sources of Assessment Bias at the Algerian University Level

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Abstract: The present work tries to shed light on a critical, but neglected aspect of assessment design and delivery in the Algerian context. Indeed, many teachers are so accustomed to deliver tests and exams that they do it mechanically without thinking about their possible negative ethical effect on students' performances. Among these aspects, one can highlight the different types of assessment bias that tests can carry and that can interfere in the students' performances. Assessment bias or the lack of fairness on the part of the assessors are due to different causes. The present article attempts to unveil two of its main sources such as tests' deign bias and the bias caused by assessors' ignorance of the learners' differences such as cultural bias, cognitive differences and the different degrees of learners' tolerance to ambiguity.

Key words: Bias; fairness; validity; formative and summative assessment

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الانصاف التقييمي والمنابع المختلفة للانحياز على مستوى الجامعة الجزائرية

الملخّص: تهدف هذه الدراسة إلى تسليط الضوء على أحد جوانب إعداد التقييم وتوزيعه فرغم أهميتها البالغة الى انها لم تول الأهمية اللازمة في واقع الجامعة الجزائرية. فبالفعل فقد اعتاد الأساتذة على توزيع الفروض والامتحانات بطريقة شبه آلية دون الانتباه إلى آثارها الأخلاقية السلبية في آداءات الطلبة. ومن بين هذه الجوانب ، لفت انتباهنا الأنماط المتنوعة للانحياز التي قد تتضمنها لامتحانات والفروض والتي قد تتدخل في آداءات الطلبة. و يعود الانحياز أو نقص الانصاف من قبل الأساتذة إلى عوامل عدة. يسعى هذا المقال إلى الكشف عن مصدرين رئيسين من مصادره هما الانحياز أثناء إعداد الفروض ونقص معرفة الاساتذة بالفروق بين المتعملين مثل الفروق الواقعة في مستوى الجانب الثقافي والفروق الواقعة في مستوى معالجات المتعلمين الذهنية. وكدلك الفوارق في درجة تسامح المتعلمين إزاء الغموض.

الكلمات المفاتيح: الانحياز. الإنصاف. الصلاحية. التقييم التكويني والتّحصيلي.

Introduction : Trying to assess students in an objective way is not an easy task as it involves complex cognitive processes and psychological states, which are sometimes out of many assessors' control. In fact, students can be victims of assessors' bias and lack of fairness. This situation may stem from the use of inappropriate assessment techniques, or criteria that do not really encapsulate a precise profile of evaluation. Bias is also related to assessors' ignorance of the specificities of some test takers who are disfavoured by the standardised tests. The latter consider them as a homogenous group that has identical capacities. In other words, standardised tests disregard the individual characteristics of tests takers. The present work tries to answer the following questions: What is assessment bias? How does it affect the teachers' evaluation? How can we lessen the effect of assessment bias on

students' evaluation? When we deal with assessment bias, we generally refer to a set of behaviours such as the assessors' lack of fairness, justice and equity when assessing learners' performances.

1- Assessment Bias

Generally, bias refers to the lack of fairness on the part of the assessors who evaluate the students' performances. Thus, fairness is a complex issue that involves some moral questions, sensible decisions and deserved act " *The word just also has multiple meanings, and it can be used to mean morally right…based on sound reason (e.g., decision)…"* (Tierney 2016 2,3) In other terms, fairness involves assessors' ability to stay objective when assessing learners' productions. Here we refer to justice, which goes beyond some technical issues related to tests' validity and design. Bachman and Purpura (2008) compared a fair assessor to a door openers or gatekeepers who decide who deserves rewards and who does not. Yet, this decision is based on the assessors' capacity to be even-handed and to give the students the same opportunities to succeed.

In spite of the diversity of their objectives, educational assessment techniques aim at ensuring fair and sound judgements about the students' performance (OECD 2013). On the one hand, assessment of learning or summative assessment techniques, which are the heritage of the psychometric tradition, target the certifications of the students' levels. They are exams or tests that take place at the end of learning episode and aim at evaluating whether the students have grasped what they have learnt or not (Bloom et al cited in William and Black, 1996). Of course, these tests and exams have a very important role in the Algerian society because they either

allow or prevent people from getting access to some job positions or higher educational training. The most famous summative exams are the national examinations such as the baccalaureate degree, and university midterm exams.

On the other hand, there is a batch of assessment techniques, which explore learners' potential of success. These assessment methods are also called assessment for leaning or formative assessment. These practices do not refer to particular tests' type but to the function of these tests. (Neff-Lippman 2012). Formative assessment tries to diagnose the students' knowledge level on the syllabus continuum and detect both their strengths and weaknesses to plan future remedial work and adjust the learning and teaching processes. (Torrance and Pryor, 1998)

However, both assessment modes aim at collecting information about the students' performance that reflects the true image of the learners' profile. This objective is a challenge to assessors, who are, in many cases, victims of some psychological factors, which can corrupt their judgment. Accordingly, the goal of any assessment mode be it summative or formative, is to obtain a sound and fair judgement about students' performances in tests and exams. To achieve this objective, test and exams have to meet a set of conditions.

The first condition is democratic access to assessment, in simple terms; assessors have to ensure that all the test takers are put on an equal footing with their peers. Algerian universities are receiving every year huge number of students coming with different learning experiences and heterogeneous cultural backgrounds. Thus, the tests' designer has to give all these students

the same opportunities to succeed and avoid favouring some learners over others. In this perspective, Tierney (2016) asserted that

> Democratic values now call for inclusive educational systems that recognize and support student diversity…this requires attention to multiple factors in the design, administration, use and consequences of educational assessment to ensure that some students are not [favoured] over others. Specifically, when student characteristics and abilities (e.g., gender, ethnicity, language) are not relevant to the construct (i.e., subject or concept) being assessed, they should not affect the results. (Tierney 2016: 292)

Consequently, the tests' design should not favour some tests takers overs others. Teachers' feedback should stay impartial, and bias shall not corrupt the assessment outcomes. In addition, the second imperative is related to the tests' design.

The second condition is the stakeholders' perception of tests' fairness. Thus, when assessors view tests as fair, this may influence the learners' engagement and lead to a better cooperation between the assessors and the test takers. In such situation, the learners will trust the assessors who strictly follow the tests designer's instructions and it will consequently reveal their real learning potential. In such a sane environment, establishing a cooperative work is easier than a context where a test is considered as unfair. *"When stakeholders view an assessment as fair and meaningful, genuine participation is more likely, as opposed to superficial compliance or disengagement."* (Tierney 2016:293)

The third condition to ensure a fair assessment is pedagogical. Assessment plays an important social role, which shapes identity and affects learners' capacity to learn and succeed (Tierney, 2016). A fair assessment process takes place when learners feel secure and safe. Such context allows learners to reveal what they know and what they do not. Making mistakes in such safe environment is not perceived as a threat but it is rather a pedagogical opportunity to both leaners and assessors to engage in a remedial work, and scaffolding (Tierney, 2016).

Nonetheless, students may not trust their assessors' judgement if the assessment criteria are not clear. Indeed, a clearly articulated objectives and assessment criteria are prerequisites for encouraging a meaningful interaction between leaners and assessors. In this perspective, Boud and Falchikov (2006) claimed that: *"Students frequently do not have the opportunity to see how the process of assessment actually works. It is something they experience as a procedure to which they submit themselves rather than something they own."* (p. 403). This is why; assessors have to involve their students in the design and the definition of the assessment criteria to optimise their engagement, gain their confidence and ensure high degree of fairness. (Rust et *al*,2003).

Fairness also involves the assessors' capacity to evaluate students' performances without referring to some learners' individual characteristics, which are not linked to what the test aims to assess. Indeed, assessment has to be adapted to the students' needs and differences. For instance, a test designed to L2 leaners should take into considerations their language difficulties, which are different from learners whose English is a mother tongue (Tierney, 2016). Thus, the tests should consider the learner's needs.

Otherwise, these tests will disadvantage them. "To ensure fairness in assessment for all students, it is important to develop frameworks for equitable assessment for the wide range of different sub-groups without privileging one group over another." (OCED 2013:187)

As we can see, a fair assessment is not a simple issue, because it is difficult to achieve. Some assessment practices are unfair but assessors are using them as both former learners and assessors. Assessors consider standardised tests as normal practices and, thus, they are rarely questioned or stigmatised. In Algeria, this issue is more serious because most teachers have inherited these assessment practices and in some situations, teachers' training includes little preparation to assess learners' productions from both summative and formative perspectives. It is, then, obvious that some teachers' practices may prejudice their students because they may be unacquainted with the bias that their practices and tests may engender. Another objective of this work is to increase the Algerian teachers' awareness of the different sources of test bias to lessen their effect on leaners' performances.

2- Test's Bias

Test bias is the result of a set of intricate variables that characterise some test, which may negatively affect learners' performance and lower their scores. Thus, assessors' decision, based on biased tests, are not valid because they cannot reflect the true profile of their learners. A biased test does not recognise the learners' individual differences and their various profiles and it is destined to a cohort of uniform tests takers. In other words, these standardised tests target "standardised" learners. Yet, these tests, which are designed in the psychometric assessment realm, are confronted to the harsh

reality of the test takers who come with different learning styles and diverse individual characteristics such as age, gender and learning experiences.

The standardised tests, which are designed on the erroneous idea that all test takers can be put in a uniform mould, cannot be trusted and cannot be a solid basis for future decision-making. In fact, a test which disfavours some leaners because it does not take all their individual differences into consideration, is not a valid source of evaluating learners with all these varieties and cannot be a reliable instrument to take the decision on their future. In this vein, Bachman et al (1990) claims

> Thus, even though the test scores may appear to provide a valid indication of ability for the group of interest, there may be systematic differences in test performance that are the result of differences in individual characteristics, other than the ability being tested, of test takers. When this happens, we speak of test bias. (Bachman et al 1990: 271)

Bias, then, is a sensitive issue, which requires a careful attention on the part of assessors. Besides, bias may corrupt assessors' judgement and it may unconsciously exclude some students who may have a tremendous potential. The problem with bias, then, is that standardised tests look at the students as analogous entities and scarifies their individual varieties such as learning styles and strategies on the altar of the psychometric tradition. Yet, we cannot always blame assessors for a behaviour on which they have a limited control and awareness. Thus, we need first to reveal the sources of bias.

3-1- Sources of Tests' Bias

Tests' bias can stem from a set of factors such as the test design, or test takers' individual differences. The subsequent section reviews some of the most investigated sources of bias namely the tests' design i.e. content validity, item selection, and test's format. Then, it provides some techniques and suggestions to lessen their effect on test takers' performances. Furthermore, it shifts to other causes of bias linked to individual differences such as cultural bias, leaners' knowledge background, and some cognitive characteristics such as field dependence or independence and tolerance to ambiguity

3-1-1- Content Validity Bias

Assessors' bias may arise from the tests' content validity. In other words, the content of some tests is inaccessible to some students and favours some leaners over others. When an assessor designs, for instance, a speaking test on nuclear energy to a group of learners from two different training backgrounds such as literature and physics, the former students, then, are likely to be disadvantaged. Unlike the students whose topic is unfamiliar, the others will feel themselves on a safe ground and may display a better language performance. Thus, the problem with the disadvantaged students is not the assessment objectives for instance the use of a good English language but the content of that test. The students who ignore everything on such biased content, nuclear energy, will be incapable to show their competencies because they cannot speak about something they ignore or on which they have a limited knowledge. In this perspective, Whiting and Ford claimed that:

There may also be *bias in content validity* when the choice of a particular set of knowledge and skills is likely to privilege certain groups of students over others…The lack of exposure and experience in relation to particular content places them at a disadvantage (as cited in OECD 2013:188)

Assessors, then, have to pay attention to the content of the topic that they select to test their learners' linguistic competencies. Algerian assessors have to be sure that the tests' topics do not favour some test takers over other because the test content is familiar to them. The second aspect of test design, that assessors have to pay attention to, is item selection

3-1-2- Item Selection Bias

Tests' items selection is also subject to bias. When designing a test, assessors have to take some decisions on what to include and what to exclude from their tests' content. These decisions do not always obey to an objective choice and sometimes some assessors believe that a given aspect of language competence such as literary lexical field deserves more attention than scientific lexis. However, some aspects which may have less value in an assessor' eyes may appear of a critical importance to another one. Consequently, item's selection is subject to assessors' bias and there is, then, a need to pay attention to this aspect when building a test. Assessors have to pay a careful attention to the objective of the test because the definition of clear objectives with clearly articulated contours may facilitate the tests' builder capacity to select the appropriate items to include in their tests. The next aspect of test design, which can cause bias, is tests' format.

3-1-3-Test Format Bias

The last aspect of assessment bias is test's format. Syllabus content is assessed in a variety of ways and through different assessment formats. Writing competence, for instance, can be assessed through a variety of assessment tools such as MCQ, gap-filling drills, essays' writing, or reorganizing scrambled sentences to form paragraphs or a set of paragraphs to build up essays and so on. Yet, assessors' decision to adopt one of them is based on the students' prior knowledge or familiarity with these different assessment formats. If some students are more familiar with some formats than the rest of the students, they will, consequently, be privileged because they have acquired the appropriate strategies to deal with such tests. Conversely, those who are not used to some tests' format will not adopt the right behaviour in such tests' situations (OCED 2013)

The Algerian teachers, then, have to prepare their student to the tests' formats prior any examination because this preparation may help them to implement the right strategies and manage their time to show their real linguistic potential. In order to avoid such bias a set of techniques have been developed to detect test's weaknesses and overcome them.

4-Techniques to Avoid Assessment Bias

There is a set of techniques, which can help test builders to detect bias and avoid it. These techniques may range from "Equity Scanning", Differential Test Functioning (DTF), Differential Item Functioning (DIF) to Differential Distractor Functioning (DDF). In spite of their different roles, these techniques aim at evaluating tests' technical aspects, which are related to

multiple-choice questions, and targeting students with heterogeneous profiles. However, these statistical techniques face a set of challenges and some of their inherent characteristics may decrease their efficiency to detect these types of bias.

In addition to these techniques, assessors can make appeal to a batch of methods to detect different types of bias. Assessor, for instance, can rely on judgemental reviews, and tests' trials to reveal if a test suffers from different types of bias.

Assessors can make appeal to judgemental reviews where a group of teachers or students (informants) with heterogeneous cultural expertise and learning backgrounds review a test from different angles such as content, format, and item selections to detect any possible sources of bias. These committees that work in cooperation may design tests with a minimum of bias. In Australia, for instance, decision makers used this technique to eliminate test's bias. One of the examples of such decisions is the Australian National Assessment Program –Literacy and Numeracy (NAPLAN) destined to indigenous students. This program aimed at detecting and eliminating all tests' biased elements which disfavour this community. The program relied on indigenous students and experts who share the same cultural background with the targeted test takers. The role of these informants is to detect and eliminate some cultural biased items that can hinder such minority's performances in tests. (Santiago et al. cited in OCED: 2013)

In spite, the importance of all the above-mentioned techniques to lower the test bias, assessors' professional training has also to be promoted.

Assessors' training is one the pillars of reforming the assessment system at the Algerian university level.

5-Assessors' Professional Training

To face assessment bias, teachers' training and preparation to assess learners' performances is of critical importance. This aspect is more salient at the Algerian university level where most teachers come with a limited training to assess their learners' productions. In addition, the teachers in the Algerian Universities are required to embark on a complex assessment system, which includes both summative, and formatives assessment measures. In spite of their familiarity with the former form of assessment, because most of novice teachers are used to them, the latter form of assessment i.e. assessment for learning, is a new practice for most of the assessors. The modus operandi of these new forms of assessment present a challenge to hundreds of newly recruited teachers who are confronted to a complex assessment framework with a little preparation. As consequence, most teachers, as their peers all over the world, use the formative assessment tools in the same way as they use their summative measures and this may lead to the loss of a real assessment opportunity (Heritage 2010).

The Algerian context is not an isolated case but many other countries face the same weaknesses. For instance, the OECD's Teaching and Learning International Survey (TALIS), which concerned 23 countries, revealed that in 2008 only "15.7% of teachers [have] "high professional development needs" (OECD:2013:5) in the field of assessing students' performances. Furthermore, assessment scoring can also be a source of bias.

6-Tests' Scoring Bias

Scoring is a judgement or an assessors' appreciation of the test takers' work. This form of feedback is important to both students and society because these scores have a huge psychological load. Indeed, students' failure or success depends heavily on the digit that assessors put on the margin of their exam papers. On the one hand, feedback may be considered as a reward for the effort made by the learners during a long period such as a whole term. On the other hand, they can be perceived as a punishment to those who have not made the necessary effort to succeed. Scoring, then, is not a simple issue because it may involve bias. Scoring needs to be fair and it has to be based on clear objective and transparent criteria, which may allow assessors to objectively classify the students' performances into levels ranging from excellent to poor works (Shepard 2000) and (Pinchok 2009)

Nonetheless, how can assessors convince test takers that the scores they get are the ones that they really deserve? The best way to reduce scoring bias is to adopt a scoring grid or rubric, which includes a detailed description of each expected level with its corresponding score. Moreover, using a scoring profile that both assessors and test takers agree on will certainly reduce bias to great deal (Pinchok 2009). Assessors should also involve their learners, in the process of establishing the scoring criteria. This may help both assessors and leaners to set up a transparent assessment profile and allow leaners to understand the assessors' expectations. (Andrade and Du 2005) Understanding the objective of tests, then, may allow students to gear their effort to achieve these objectives and it may also help them to understand both their strengths and weaknesses.

7-Tests Validity and Bias

Another critical issue when dealing with assessment bias is tests' validity. According to Bachman et al (1990), tests' validity is another important source of bias because a valid test can reduce the interference of some factors that can affect the learners' performance in a way or another. Nevertheless, validity is a complex concept, which refers to some aspect of a test's design. The latter may include face, content and construct validity. However, Messick (1989) put these different concepts under one umbrella and considered it as "*an integrated evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of inferences and actions based on test scores"* (Messick as cited in Bachman 1990:237)

In fact, a valid test may become a solid basis on which assessors and decision makers can take sound decisions on the future of people who take tests and examinations. Thus, ensuring a valid test is necessary, if we want to take fair decisions concerning who gets what (Bachman et al 1990). If the decisions are made on a wrong judgement, which is, in turn, based on incorrect inference from invalid tests' scores, this will lead to an assessment bias. In other words, assessors will award people who do not deserve some advantages such as certificates, diplomas and job positions. They may also disfavour others who are of a better language proficiency level Tripon (2019). So, how does this happen? In order to understand the bias process, the following will show how some aspects of the tests' design favour some learners over others.

7-1-Cultural bias

Bias may also stem from foreign language culture, which is not always at the learners' reach. The students who ignore the English culture may feel disadvantaged by a test, which is based on culturally laden material. In the case of the Algerian context, where English language vehicles a foreign and a distant culture, this may lead to some obstacles which are difficult to surmount by unprepared Algerian test takers. Learners in such situations are victims of biased tests especially if the tests are not based on a prior teaching of these cultural concepts. This phenomenon is not recent; indeed, many researchers have demonstrated the impact of culture bias on tests' takers performances. Bachman listed a batch of studies such as Britre (1968, 1973; Britre and Brown 1971) who proved that culturally based tests disadvantaged American Indians tests takers. Bachman et al (1990) also cited Chen and Henning's (1985) study, which investigated MCQ's vocabulary tests. The latter included lexical items, which favour some learners' groups over others. Besides, bias may also arise from learners' background knowledge differences.

7-2-Background Knowledge Bias

The differences between tests takers' backgrounds can become a source of bias. Learners' performance may differ a lot when the test takers are familiar with the topic of the test. Bachman et al (1990) cited Erickson and Molloy (1983); Alderson and Urquhart (1983, 1985a, 1985b); Chacevych et ai. and Hale (1982) who studied the effect of leaners' background knowledge differences on their performance in tests. For instance, if the topic is completely unfamiliar to the students, the latter, for instance, may face some difficulties to understand the vocabulary of the reading material used as subject in a test. However, it is the interpretation of the scores, which may

generate a test bias. If, for instance, a specialised text is provided as a material to evaluate the learners' reading competence, this test cannot be considered as biased one. Yet, it is when the content of the text such as specialised vocabulary, some processes, and technical issues are part of the evaluation and if the test favours some learners over others because they are, more familiar with that field of interest, that we can say that a test is a biased one. In other words, we can say that this test is considered as a biased one because it advantages the learners, whose test's content is a part of their expertise (Bachman et al, 1990)

Bias can also be the result of the assessors' ignorance of some learners' individual cognitive characteristics. Learners, as we all know, are different in terms of their cognitive characteristic such as field dependence or independence, and tolerance to ambiguity. These features are the most studied aspects of the learners' differences but this does not mean that there are no other aspects, which can affect their performance in test or exams.

7-3-Field (In)dependence and Test Bias

There are two different types of learning styles. There are field independent and field dependent learners. The former leaners view knowledge as a set of separate and unrelated items while the latter see it as a whole. These learning styles have been investigated by different studies in psychology where researchers noticed that test takers tend to adopt different behaviours when dealing with some complex geometric forms. Some test takers are able to describe these complex forms by disassembling them into their sub-forms. This skill characterises field independent learners. However,

field dependent learners are incapable to distinguish these sub-elements and view them as a whole.

These findings led educational test designers to extend this distinction to students taking the different language tests. In fact, tests fall under different types and target a variety of cognitive capacities. Some tests split language competence into discrete items, which are presented in a fragmented way. In simpler words, a test such as ordering words to build up a sentence does not require a complex reflection process but needs just the knowledge of grammatical rules related to the way words such as nouns, verbs, adjectives combine on the linear continuum to build up a sentence. In such tests field independent students may score better than the field dependent ones. Yet, we may also expect students with field dependent characteristic to score higher on tests, which require more reflection capacities. Sabet and Mohammadi (2013) confirmed this idea

> Field Independents demonstrated a greater ability to overcome a given organizational context and separate or dissembled the relevant information from the surrounding stimuli; on the other hand, Field Dependents had lesser competence when performing such tasks (Sabet and Mohammadi 2013: 2142)

On the one hand, we can hypothesize that learners with a high degree of field independence would perform well on discrete point tests, in which the items are essentially unrelated to one another and to the overall context in which they occur. Students with low field independence, on the other hand, may perform better on integrative tests such as oral interviews. The latter are not conscious of the discrete items constituting them, but they can process

the test in a global manner. Furthermore, tolerance to ambiguity is another cognitive aspect that can generate test bias.

7-4-Tolerance to Ambiguity

Tolerance to ambiguity is stable individual differences in the way learners perceive, interpret and react to external stimuli. This phenomenon has a biological explanation. This cognitive load is explained on neurological ground, it explains how the human brain reacts to ambiguous situations and when the learners are not certain of the right answer to provide. The human brain reacts to the external stimuli such as auditory or visual sensors by the brains' dorsolateral prefrontal cortex. This part of the brain is responsible of receiving, processing and coordinating the information to engage a suitable action. Ambiguous situations challenge this part of the brain and the lack of clear and sufficient clues to understand some phenomena and classify them into clear mental models may increase their anxiety. Consequently, confusing tests instructions or content may provoke different degree of anxiety, which explain the learners' different degrees of tolerance to ambiguity.

Tolerance to ambiguity is, then, a critical issue that can cause assessment bias. Indeed, tolerance to ambiguity is the learners' reaction to tests that present ambiguous answers. These reactions differ from one student to another. On the one hand, some learners consider ambiguous tests as a threat and they react negatively by adopting inappropriate strategies to tackle them. This may lead them to a total block. On the other hand, other leaners are tolerant to ambiguity. In other words, such type of learners are motivated by such ambiguous questions, because they are at ease and these situations

are rather desirable. The high degree of ambiguity does not represent a threat to them but they are rather considered as a challenge. In this vein, Budner (1962) wrote

> Intolerance of ambiguity may be defined as 'the tendency to perceive (i.e., interpret) ambiguous situations as sources of threat' and tolerance of ambiguity as 'the tendency to perceive ambiguous situations as desirable. (as cited in McLain et al 2015: 2)

Some learners, whose cognitive capacity is put under a great pressure sometimes view assessment as a threat and this may lead them to a block. Learners with low degree of tolerance to ambiguity may face huge difficulties to deal with ambiguous questions or questions with complex answers. Furthermore, leaners with low degree of ambiguity may consider them, as a real threat and this will consequently increase their anxiety and lead them to a total block. Contrariwise, the same test may become a real motivation to students with high tolerance to ambiguity when engaging in such tasks.

Tolerance to ambiguity leads to some behaviours, which can impede learners from answering exam questions such as leaners' error making made on attributing causality, inaccurate choices, delayed decision making. These reactions attenuate with time as the learners get more information and clarification about the exam topic. (McLain et al 2015)

Unfortunately, timed exams, which constitute the bulk of the assessment procedures in the Algerian universities, allow a very limited time span to allow learners, with low degree of tolerance to ambiguity, to process and treat all these stimuli and to adjust to the exam situation. Algerian teachers are,

then, invited to consider this cognitive aspect by providing exams with clear instructions, enough data and ample time duration to allow test takers to process the information in an appropriate way. The neglect of this aspect of the test design may favour learners with high degree of ambiguity over others and this is another cause of test bias.

8-Conclusion

Test bias is a neglected issue in the domain of assessment at the Algerian university level. This modest work is a call for a thorough investigation of the different sources of bias. The present work started with a definition of closely related concepts, which are fairness and bias. Indeed, the lack of fairness is caused by the different types of bias that learners are victim of. Then, we tried to highlight a set of sources of bias generated by the tests' characteristics such as test content, item selection and tests' formats. Then, the work shifted to bias related to tests incapacity to take into consideration the test takers profiles such as learning styles, experience. However, it is also important to mention that there are other sources of bias such as gender, age and ethnic groups. These learners' aspects are as important as the other features discussed in this article but due to its limited nature, this article does not tackle them. The objective of this work is to pave the way to some field studies in the Algerian context to verify the extent to which these sources of bias influence learners' performances.

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