

## The exactitude of the speech therapy diagnosis in the light of the absence of the oral language tests adapted to the local languages of the child

دقة التشخيص الارطوفوني في ظل غياب اختبارات فحص اللغة الشفهية المكيفة على اللهجات المحلية عند الطفل

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### Abstract:

*The speech therapist faces many difficulties when diagnosing cases of children who suffer oral language troubles due to the lack of the linguistic tests that are designed on the characteristics of the Algerian Arabic with its various dialects. In addition, the adapted tests that differ in some points from the Algerian culture are not sufficient in giving an exact diagnosis for the trouble due to the variety of the dialects of the one language. In this context, the characteristics of the dialect of Oran differ than that of Algiers, the Kabylie, etc. This made the speech therapists unable to make an exact diagnosis. In this line, this study relies on the analytical descriptive method through the distribution of an electronic questionnaire on a sample of 60 speech therapists from the various regions of Algeria. Findings show that the lack of the oral language tests that are adapted to the Algerian local dialects has a negative effect on the quality and exactitude of the speech therapy diagnosis.*

**Keywords:** diagnosis; adapted tests; oral language; local dialects.

ملخص :

يواجه المختص الارطوفوني صعوبات عديدة أثناء تشخيص الحالات التي تعاني من اضطرابات على مستوى اللغة الشفهية عند الطفل، وذلك بسبب نقص الاختبارات اللغوية المصممة والمبنية على خصائص ومقومات اللغة العربية الجزائرية بمختلف لهجاتها من جهة، ومن جهة أخرى نجد أن الاختبارات المكيفة والتي تختلف في بعض النقاط مع الثقافة الجزائرية لا تفي بالغرض في إعطاء تشخيص دقيق للاضطراب وذلك لاختلاف اللهجات في ذات اللغة فخصائص

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اللهجة الوهرانية تختلف عن العاصمة وعن القبائلية.....، وهذا ما يجعل المختص الاطوفوني عاجز عن تحديد التشخيص الدقيق في ظل غياب اختبارات مصممة أو مكيفة على اللهجات المحلية للغة العربية الجزائرية، وفي هذا السبيل اعتمدت الدراسة الحالية على المنهج الوصفي التحليلي، وذلك من خلال توزيع استمارة استبيان الكتروني على عينة مكونة من 60 مختصا ارطوفونيا من مختلف أنحاء الوطن، حيث توصلت نتائج هذه الدراسة الى انه لنقص اختبارات فحص اللغة الشفهية المكيفة على اللهجات المحلية عند الطفل تأثير سلبي على دقة وجودة التشخيص الاطوفوني .

الكلمات المفتاحية: التشخيص ; الاختبارات المكيفة ; اللغة الشفهية ; اللهجات المحلية .

## 1. Introduction:

The language and its functions are among the most evaluated fields in the neuropsychology because it is a major tool in communication with multiple dimensions and cerebral anatomic areas that intervene in the actions of these functions in the hemispheres (Olfet Hussein Kahla, 2012, p. 212). The speech therapy diagnosis of all the sides of the language is made through various methods and tools that differ according to the age, gender, and cognitive level of the case. The diagnosis must be exact since the 1<sup>st</sup> time until the final one so that the therapist can set rehabilitation programs (Zellal N, 1997, p. 12).

In addition, it must cover the phonological side until the observation related to the pragmatic side and the evaluation of the communicative functions, the discussion, and the non-verbal communication (Kersner, Wright, 2012, pp. 112-113). In the light of the lack of the diagnosis tools of the various troubles of the oral language in the Algerian clinical milieu, the expert relies on adapted and non-adapted foreign tests in order to make his diagnosis. However, the latter would not be exact most of the times because these tests completely differ than the linguistic and cultural characteristics of the Algerian environment. Boural Mizouni designed many language tests and pedagogical tools in the field of arithmetics and reading and writing learning. In addition, she invented a way based on the voice and signs to rehabilitate the speech and language troubles (Rekza, Jennan, 2018, p. 10). Due to the lack of the linguistic tests related to the Algerian environment, many students and researchers adapted tests of other languages and cultures that differ from the language structure and from the cultural, religious, and social sides of the Algerian environment with all its dialects either in the oral side (comprehension and production) through the tests that require a verbal response by the case, or the written side through tests of dictation and outloud reading etc. In this line, Chevrie Muller says that it is very

affecting to consider the application of the tests as a routine part in the clinical field when it comes to the evaluation of the various cognitive and psychological sides while it is always limited when it comes to language despite that the analysis of the formal sides of the language of the child shall not succeed unless these tools are applied. Due to the difficulty of designing these tests and the need for big time, efforts, and a multidisciplinary work team, the researchers bring foreign tests and adapt them to other languages and cultures so that the tests have a credibility in the diagnosis.

Many studies have adapted foreign tests to the Algerian environment. For example, the battery of MTA that is adapted by Nacira Zellal and that had been published in 2002 aims at the linguistic psycho-cognitive evaluation of the aphasia in the people aged between 20 and 70 years old. In 2008, Dr. Miroud Mohamed adapted the oral comprehension test of Abdul Hamid Khomsi and made the necessary linguistic modifications. This was made on a sample of 60 male and female students aged between 03 and 07 years old in the Algerian environment. In addition, the test of TEEP adapted by Pr. Boucetta Yamina in 2009-2010 used words that suit the Algerian environment and aimed at studying the cognitive abilities of the children with cochlear implant in the Northern region of Algeria. It is meant for the children aged between 2 and 10 years old.

Furthermore, the battery of L2MA that is translated into Arabic and adapted to the Algerian environment by Nouri Emilie Ouarda is designed for the psycholinguistic measurement of the children aged between 08.5 and 11.5 years old. Besides, the test of ELO that is adapted to the Algerian environment by Adda Dalial in 2016-2017 aimed at giving an exact description and evaluation of the various elements of the linguistic competency that include the lexicon, the phonology, and the morph syntax in a complete way to study the language at the level of comprehension and production of the children aged between 03 and 10 years old. Furthermore, other tests include that of Raiz Chevré Muller adapted by Dr. Miroud Mohamed in order to measure the language. It aims at revealing the linguistic abilities of the child, the mechanisms of their development, and his competency in using them. Besides, it reveals the negative sides of the language of the child. In this context, studies confirm that the tests designed for Western cultures do not get acceptable grades when translated into other languages, mainly Arabic whose structure differs than the other languages and is based on various dialects, even in the one region. Thus, the translation does not serve in such context (Boussalem Abdul Aziz, 2015, p. 20).

The process of tests adaptation is complex and difficult particularly to Arabic because the cultural side plays a big role in this process. Thus, the researcher finds himself in front of many obstacles in adapting the tests even in the one language mainly in Algeria due to the multiplicity of the dialects and cultures. As a result, the linguistic test that is adapted to the Tamazight dialect cannot be applied to the Orani dialect and vice versa. This is confirmed by Adda Dalila who found that the process of designing or adapting the tests is difficult and sensitive due to necessity of the researcher's mastery of the principles of the psychological measurement of the child and competence in the language (Adda Dalila, 2016, p. 23). In these cases, and due to the big lack of the adapted tests to the local dialect used, the researcher finds himself obliged to adapt the tests in order to get an exact diagnosis that determines the language troubles of the cases. Therefore, the diagnosis faces many obstacles that hinder the achievement of quality clinical practices (Tarek Salhi, 2016, p. 145).

Consequently, this study aims at revealing the exactitude of the diagnosis in the light of oral language tests that are adapted to the local Algerian dialects. In addition it aims at pushing the researchers to adapt the tests to the local dialects of the cases in order to set correct therapeutic programs starting from an exact diagnosis of the type and severity of the oral language troubles. Besides, the study provides a model on the status-quo of the speech therapy diagnosis in the light of the absence of the adapted diagnosing tools and the implications on the care provided to the cases. In addition, the study pushes the researchers to design such tests according to the Algerian local dialects to facilitate the process of research, diagnosis, and care. Based on what has been said, we raise the following questions:

1. To what extent is the speech therapy exact in the light of the absence of the oral language tests adapted to the local dialects?
2. To what extent does the absence of the oral language tests adapted to the local dialects affect the exactitude of the diagnosis?

## **2. Hypotheses of the study:**

1. The speech therapy in the light of the absence of the oral language tests adapted to the local dialects is not exact.
2. The absence of the oral language tests adapted to the local dialects has a negative effect on determining the suitable diagnosis of the troubles.

### **3. Type and method of the study:**

Based on the problematic and importance of the study, the latter is part of the descriptive studies that have an interpretational analytical dimension. This type of studies describes exactly a phenomenon and collects data and information in order to analyze them quantitatively and qualitatively and, thus, provide interpretations for the under study phenomenon.

#### **4. The field frame:**

##### **4.1 The study tool:**

In this paper, we relied on an electronic questionnaire because it is the suitable tool for the study method and topic. This tool enables us to collect data and information. In designing the questionnaire, we went through various phases starting from the attempt to link the main axes with the problematic and, then, making the final design relying on the theoretical domain and the literature review. The 1<sup>st</sup> axis shows the personal information of the informants such as the gender, specialty, scientific degree...etc. The 2<sup>nd</sup> revolves around the diagnosis of the oral language troubles of the child. Its statements tackle the most known oral language troubles and the main services provided for this category. The 3<sup>rd</sup> axis revolves around the tests adapted to the Algerian dialects, the most important tests adapted to the Algerian context with its various local dialects, and the suggestions of the experts of this field.

The questionnaire was introduced to reviewers in speech therapy in the Universities of Oran and Mostaghanem. The reviewers made comments about mistakes and gaps in the questionnaire. The latter includes a set of close-ended and open questions. The questionnaire was published on the internet on 23/12/2022 at 09:54 for a sample of 60 active speech therapists in various regions of Algeria.

##### **4.2 Population and sample of the study:**

The population of the study includes active speech therapists with their various genders, scientific degrees, workplaces, and the dialects used in the work environments. The sample includes 60 of them who had been chosen at random. The following table shows the characteristics of the study sample.

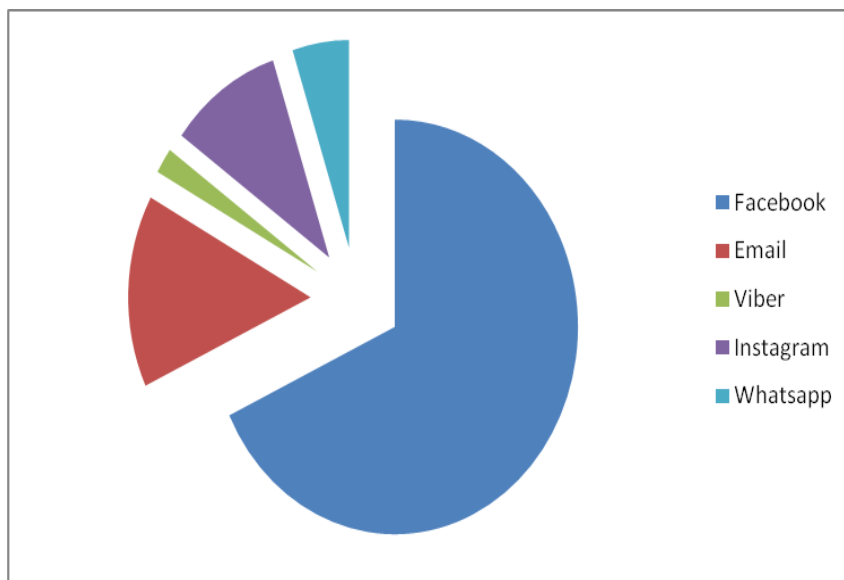
Table 01: The characteristics of the study sample.

Gender		Specialty				Scientific degree						Professional experience				
Male	Female	Commun	Hearing	Neuroco	Neurolin	Bachelor	Master	PhD	From 01	From 05	More	Hospital	Clinic	Associati	Kinderga	school
13	47	39	05	04	12	21	25	14	40	18	02	32	19	03	02	04

**Source: prepared by the authors based on the results of the questionnaire.**

The table above shows the characteristics of the 60 speech therapists with their different scientific degrees and academic fields. In this context, 39 specialists in language and communication troubles participated to this study all along with 12 specialists in the clinical neurolinguistics and 05 and 04 specialists in the hearing impairments and the neurocognitive impairments, respectively. These people have from one to more than 10 years of experience and are working in various centers. 32% of them work in public hospitals, 19% in private clinics, 04% in the schools, 03% in the associations, and 04% in the kindergartens. We contacted them via social media.

**Figure N° 01: The social media used to contact the sample members**



**Source: prepared by the authors based on the results of the questionnaire.**

Figure 01 shows that we relied on the social media to get answers to the electronic questionnaire and contact the sample members. We relied on Facebook with 68%, Email with 15%, Instagram with 10%, Whatsapp with 5%, and Viber with 2%. Thus, we used different platforms to develop the scientific research, save time and effort, and give the informants more feeling of comfort in communication.

### **3. Presentation and discussion of the results:**

#### **3.1 Results of the study:**

After collecting the electronic questionnaires and getting the suitable number for the study, we input the data and processed them statistically using SPSS26. Findings show that:

#### **3.2 Presentation and analysis of the 1<sup>st</sup> question:**

It says “To what extent is the speech therapy exact in the light of the absence of the oral language tests adapted to the local dialects?”

Because the sample of the study is from different regions in the country, the dialects used in the workplaces differ. We had 12 specialists from the East, 38 from the West, 07 from the Center, and 03 from the South. Thus, there is diversity in the studied dialects according to the workplaces of the sample members.

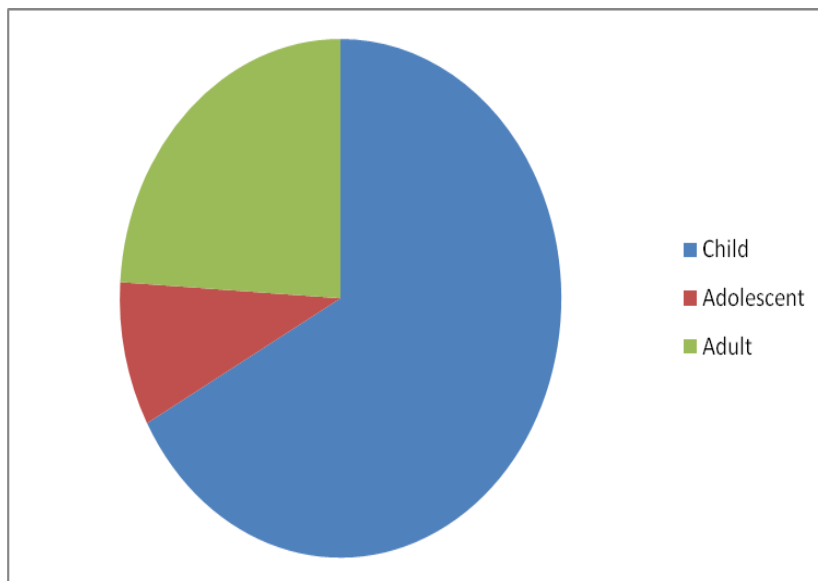
**Table 02: The distribution of the speech therapists in the various corners of the country**

The region of the workplace	Number of specialists
East	12
West	38
Center	07
South	03

**Source: prepared by the authors based on the results of the questionnaire.**

The patients were 67 children, 09 adolescents, and 24 adults. Hence, the big part is by children.

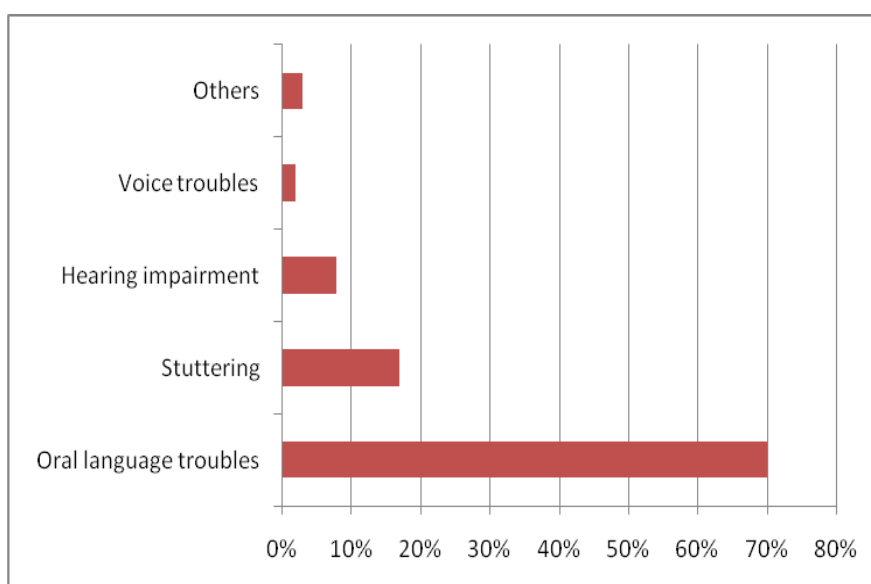
Figure N° 02: The categories dealt with by the speech therapists



Source: prepared by the authors based on the results of the questionnaire.

The troubles of the children differ between the oral ones with 70% mainly the simple language delay that represented 84% of the cases and Dysphasia with 16%. In the second rank, we find stuttering with 17%. Then we find the hearing impairments with 08% and the voice troubles with 02%. In addition, other troubles got 03%. This shows the diversity of the troubles that face the speech therapy from one side, and the widespread of the oral language troubles from one side; mainly the simple language delay.

Figure N°. 03: The most widespread troubles among the cases



Source: prepared by the authors based on the results of the questionnaire.



The services provided by the speech therapists differ including the prevention, evaluation, diagnosis, and treatment according to the results of the questionnaire which show that 99% of the therapists said that they make the treatment based on an exact diagnosis of the trouble. Nevertheless, after getting deep in the questionnaire which had open questions about the quality and exactitude of the diagnosis and the tools used in the diagnosis, we found out that 50% of the therapists use language tests, some others use the anamnesis, while some others use the spontaneous and structured oral dialogue to determine the type and degree of the oral language trouble.

Because we make the oral language diagnosis of cases that speak the Algerian Arabic, mainly the dialects that differ from one region to another, we have to evaluate the mother tongue of the child to get an exact diagnosis using suitable tests to the language. Thus, we asked the therapists if there are tests that are designed in the Algerian clinical milieu. 66.7% said no because some adapted tests do not serve the dialects they were designed for. On the other hand, some see that these tests are very few and are monopolized by the research labs while others said that there are no tests designed for the Algerian linguistic milieu and that what exists is just a mere adaptation of foreign languages tests. In addition, 33% said there are designed and adapted language tests in the Algerian clinical milieu.

### 3.3 Presentation and analysis of the 2<sup>nd</sup> question:

It says “To what extent does the absence of the oral language tests adapted to the local dialects affect the exactitude of the diagnosis?”

**Table 03: The answers of the specialists about the suitability of the available tests in diagnosing the oral language troubles of the cases that speak the local dialects.**

Answers	Frequencies	Percentage
Yes	9	15%
No	36	60%
Sometimes	15	25%
Total	60	100%

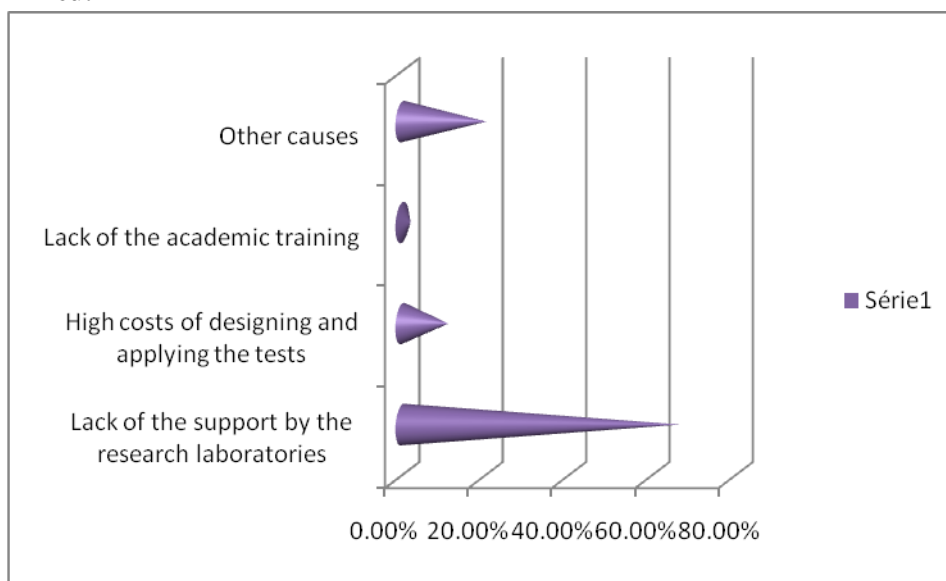
**Source: prepared by the authors based on the results of the questionnaire.**

The table shows that 36% of the sample members said that the adapted language tests are not suitable for the local dialects while 15% said that they

may serve in checking the local dialects used by some despite being of other languages. On the other hand, some see that these tests can check the local dialects of the various cases. Starting from this open question, we asked those who said “no” who made 60% of the sample what they do to make sure the results are correct if the tests do not suit the characteristics of the local dialect (Darja in some cases). The answers were open according to the type of the question. However, most of the answers agree that it is a daily problem speech therapists suffer. On the other hand, some said that the diagnosis is relative while others said that it is made through the clinical observation. As for the least answer, it was the clinical monitoring. Thus, diagnosing the oral language troubles is not exact and, hence, the therapy may not be exact.

- What is the cause of the lack of the oral language tests of the child that are adapted to or designed in the Algerian clinical milieu?

**Figure N° 04: The cause of the lack of the oral language tests of the child in the Algerian clinical milieu.**



**Source: prepared by the authors based on the results of the questionnaire.**

Consequently, from figure 04, we notice that 66.7% of the answers attribute the lack to the little support by the research laboratories while 11.1% to the high costs of designing and applying the tests. On the other hand, 02% see that it is due to the lack of the academic training that qualifies such kind of researches while 20.2% see that it is due to other causes that were not specified. Hence, all these cases hinder the establishment of an exact diagnosis of the troubles of the language and determining the suitable treatment program.

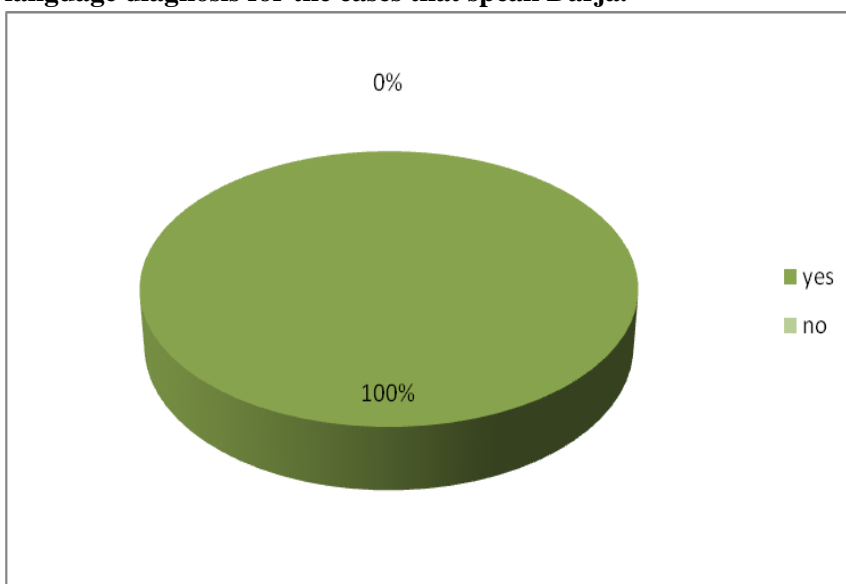
What do the therapists suggest to get an exact diagnosis of the cases that speak the local dialects (Darja)?

From the answers of the specialists, we see that 77.8% agree that it is necessary to design tests related to each dialect while 22.2% see that it is necessary to adapt foreign tests to save money and effort. In both cases, the academics and researchers need to find ways to develop the field starting from an exact scientific diagnosis of the oral language troubles of the child as confirmed by the results of the question.

Do you advise your colleagues to make such researches?

100% of the answers agreed on the necessity to adapt or design test related to each dialect as shown in Figure 05.

**Figure N° 05: The view of the specialists about the necessity of designing tests of the oral language diagnosis for the cases that speak Darja.**



Source: prepared by the authors based on the results of the questionnaire.

#### **4. Discussion of the results:**

After making the qualitative and quantitative analyses of the data obtained from the electronic questionnaire answered by speech therapists from various fields with different scientific degrees in various regions, we see that the sample members deal with children who suffer troubles at the level of the oral language mainly the simple language delay. This category provides various services to the cases such as the guidance, prevention, and mainly treatment based on an exact diagnosis of the troubles.

Based on the obtained results, we find that the therapists suffer the lack of the diagnosis tools and even if they are available, they do not measure the various dialects that differ from one region to another. The adaptation of the tests is very important for the empirical scientific researches because they enrich the scientific aspect, and for the diagnosis and treatment because they help achieve

good scientific and practical results that suit the patient (Jaballah Youcef, 2022, p. 1).

Moreover, the specialists see that the lack of the language tests in general is due to the monopoly of the tests by the research centers and laboratories. In addition, the absence of language tests designed in the Algerian context is due to the high financial costs, effort, and time needed for the process as confirmed by Adda Dalila in her study in (2016) that aimed at studying the psychometric characteristics of Khomsi test that aims to evaluate the oral language test in order to adapt it to the Arabic that is used in the Algerian milieu. She confirmed that the process of designing or adapting the test is so difficult and sensitive because it is linked to a set of points that include the necessity of mastering the principles of the psychological measurement and to be good at the language.

Hence, the process of diagnosing the troubles of the oral language of the child is still relative and not exact because it entails the side of the examiner relying on the clinical observation, the anamnesis, and even the speech therapist monitoring of the cases that are not sufficient per se. Based on this, the hypotheses of the study are confirmed because of the inexactitude of the diagnosis of the oral language of the child who speaks Darja (the local dialect) as shown by the answers of the specialists. In this regard, the patient cannot get the terms of specific instructions or points of the tests due to the cultural difference. Besides, he may face difficulties understanding the meaning of a given word due to the dialectical differences. In addition, some words do not necessarily express the suitable meaning of the instruction despite it is correct.

In addition, this was confirmed by Adda Dalila in her study where she confirmed that the process of adapting the tests is difficult and complex mainly for Arabic that has complex characteristics compared to the other languages. Moreover, the cultural side plays a big role in this case and, thus, the researcher finds himself in front of many obstacles in adapting the tests even in one language mainly in Algeria due to the multiplicity of the dialects and cultures. As for the lack of the diagnosis tools and the results of the questionnaire, the specialists suggest designing language tests related to each dialect while others suggest adapting foreign ones to reduce the costs and efforts. They agreed about the necessity of collaboration between the researchers and academics in such studies to enrich the field of speech therapy.

## 5. Conclusion:

Based on the results obtained after collecting the questionnaires from 60 speech therapists with different dialects from the various regions, and on the light of the qualitative and quantitative analyses and the discussion of the obtained results, we confirm that the speech therapy diagnosis of the oral language troubles is inexact mainly if the tests are not adapted to a specific dialect or designed for it. In addition, the specialists confirm the daily sufferance they face when diagnosing the oral language troubles of the child that cannot be very exact unless there is a test that studies its characteristics and features from all the pronunciation, phonological, and pragmatic sides.

In the end, we conclude that the speech therapy still needs many studies and researches about the design or adaptation of tests related to each dialect so that the therapist can work easily and give exact diagnoses to the oral language troubles and successful solutions to the patients according to the strengths and weaknesses that determine these tests. In the end, we recommend:

- Supporting the theoretical side in speech therapy with studies and researches about the status-quo of the speech therapy and the obstacles the specialists face daily in their practices.
- Pushing the research laboratories to provide the researchers and specialists with speech therapy tests to develop, translate, and adapt them.
- Enriching the practical side of the speech therapy through adapting the language tests and publishing them so that the specialist may work easily in the light of the availability of the diagnosis tools.
- Supporting the researchers morally and financially to make local tests related to the Algerian local dialects that are characterized with diversity and differences from one region to another.

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