

_lognostics

A diagnostic test for vowel blindness in Arabic speaking learners of English.

Ann Ryan and PM Meara

Introduction

This paper is a draft of a diagnostic test for use with Arabic speaking learners of English. In our experience, some Arabs produce lexical errors in English which are only rarely produced by speakers of other L1s. The sort of error we have in mind is the obvious mix up in a sentence such as

The little girl's hair was full of cereals

Where *cereals* has been confused with *curls*. Most experienced teachers of Arab learners of English will be able to provide similar examples of their own. Experimental data (e.g. Ryan 1994) corroborate this anecdotal evidence and suggest that some Arabic speakers perform oddly on a range of experimental tasks which involve word discrimination. All these tasks involved discriminating words with identical consonant patterns, but differing in their vowels. Some Arabic speakers, it seems, are conspicuously inaccurate in handling vowels in English words, and are much more prone to make errors involving vowels than subjects from other L1 backgrounds.

One possible explanation for these effects is that Arabic speakers may transfer to English a set of psycholinguistic strategies that are more appropriately deployed in processing Arabic words. In Arabic, vowels are of secondary importance both in script and in word building, and the word recognition system depends heavily on the tri-consonantal roots which are the basis of most Arabic words. Word families in Arabic are made up of sets of words which all share a common set of three consonants but vary in the way vowels are placed within this consonantal framework. Thus, *katab* he wrote, *yiktib* he writes, *kaatib* clerk, *kitaab* book, *maktab* office, *maktaba* library, etc. are all variations on a single tri-consonantal theme **K-T-B** (Mitchell 1962). Such a writing system works well with Semitic languages, but creates problems for readers when they start learning a language which follows different structural rules. A system which encourages the reader to focus on the consonantal framework of the word does not allow sufficient discrimination between words when it is transferred to the lexical system of English, where consonants are not the only key signals for a reader. Thus **R-D-R** is an inadequate representation for *reader*, since

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this consonantal code is shared with several other unrelated words (*raider, rider, rudder, ardour, ordure, order, redraw*, etc).

We suggest that a substantial number of Arabic speaking learners of English may be using inappropriate word recognition strategies of this sort. Our guess is that most Arabic speakers will use a system of this sort in the early stages of learning English, although we do not have hard evidence to back this hunch up. Most learners, it seems, succeed in developing a word handling system that is appropriate to English in the long run. However, a number of learners continue to have difficulties with English words, and continue to make confusions like *dismal numbers* for *decimal numbers*. Indeed, some may never get past this problem.

The purpose of this paper is to present a diagnostic test which we think will allow teachers to identify Arabic speaking learners who are experiencing unusual word handling difficulties. The test is a development of some detailed experimental work reported more fully in Ryan (1994). It is presented here for comment and evaluation. Comments from users would be particularly welcome.

Development of the test

The test grew out of a preliminary battery of three tests based on some work by Coltheart (1982) and Masterson (1983). These tests were originally designed as screening tests for native English-speaking dyslexics. In our first test, students had to read aloud a series of words which exemplified a range of regular and irregular spelling rules, for example, *fed* and *bread, break* and *save*. In the second, they had to spell the same list of words from dictation. The third task, called the silent reading task, was based on the homophone discrimination material developed by Coltheart (1982). In his test, testees read texts which contained a choice of homophones, and how to identify the correct one. For example:

The boy played with his model plain/plane.

Our test uses similar technique, but uses distractors sharing an identical consonant structure with the target words, while differing in their vowel structure.

All three tests discriminated between Arabic students and other EFL learners, and correlated highly with each other (see table 1). However, task 3, the silent reading task, is much the strongest candidate as a quick diagnostic instruments for all learners. Testees who have difficulty in distinguishing words by their vowel sounds produce large numbers of errors in this test. The test is also easier to administer and easier to score than the other tests. But this reason, the diagnostic test presented here consists of only a silent reading test described below.

Table 1: correlations between three tasks (Ryan 1994)

	spelling	reading aloud
silent reading	.774	.746
spelling		.617

Test format

The test consists of 60 sentences. The testee has to read each sentence and underline any wrong word that appears in the sentence. Any wrong words identified in this way have to be corrected. For instance, in:

He had a both and went to bed

You would underline *both* and replace it with *bath*.

The complete test consists of 60 sentences. 40 these items contain errors, while 20 contain no errors. Both the target lexis and the words that make up the sentences are controlled for frequency: all the items come from Thorndike and Lorge's AA and A range.

Scoring

The simplest method of scoring the test is simply to count the number of times an incorrect sentence is identified, and to compare this figure with the number of correct sentences that are incorrectly identified as having an error. You can do this by following the steps below:

- Calculate the total number of errors identified:
- call this number R:
- the correct answers are: 2 4 5 10 13 17 20 23 25 27 30 34 36 39 41 44 49 52 56 60. The other examples all contain an error.
- Calculate how many of R were actually correct sentences:
- call this number C:
- multiply C by 2:
- calculate $T=R-(C*2)$.

The maximum score is 40. Native speakers should normally score 35 or more correct answers, and testees with a reasonable, but not totally fluent, the command of English will score around 20 points. If T is less than 10, then this should be taken as indicating that the testee has a serious problem with discriminating between words with identical consonant structure but different vowels. Testees who fall in this range will have only a partial grasp of grapheme/phoneme relationships in English.

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Reliability

It has not been possible to conduct a large-scale reliability test that this material, but we believe it to be reasonably robust. Comments from users with access to larger numbers of testees than we have would be particularly welcome.

References

Al-Hazemi, H. 1993.

Low-level EFL vocabulary tests for Arabic speakers. Ph.D. thesis, University of Wales.

Al-Sulaimani, A. 1990.

Reading problems in Arabic learners of English. Ph.D. thesis, Birkbeck College, University of London.

Coltheart, M. 1982.

Analysis of acquired dyslexias. *Philosophical Transactions of the Royal Society of London series B*, vol298, 151-164.

Masterson, J. 1983.

Surface dyslexia and the operation of the phonological route in reading. Ph.D. thesis, Birkbeck College, University of London.

Mitchell, T. 1962.

Colloquial Arabic. London: Hodder and Stoughton.

Randall, M. 1991.

Recognising numbers in different scripts. *Second Language Research* 7,3(1991), 204-219.

Ryan, A and PM Meara. 1991.

The case of the invisible vowels. *Reading in a Foreign Language* 7,2(1991), 531-540.

Thorndike, EL and I Lorge, 1944.

The Teacher's Wordbook of 30,000 Words. New York: Teachers' College, Columbia University.

Wimmer, H. 1993.

Characteristics of developmental dyslexia in a regular writing system. *Applied Psycholinguistics*, 14,1(1993), 1-33.

Vplus: Vowel Sensitivity Test

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What you have to do:

Write your name here: _____

Write your first language here: _____

Write today's date here: _____

There is no time limit to this test.
Do not use a dictionary in the test.

Read the test carefully. There are 60 sentences in this test. Twenty of the sentences are correct. The remaining 40 sentences each contain ONE mistake. You have to find the mistakes: underline the word which is wrong and write the correct word above it. For example:

He had a both and went to bed.

The correct word is not *both* but *bath*, so you underline *both* and write *bath* above it like, like this:

BATH
he had a both and went to bed

Scoring: R=____; C=____; R-2C= ____;

Action:

- 1. Have you met my aren't? She's my mother's sister.
- 2. The cat is under the table
- 3. The torn came into the railway station.
- 4. Oh dear! You've cut your finger - look at the build.
- 5. They went camping and slept in a tent.
- 6. The cat drinks a blue of milk each day.
- 7. Can you get some broad if you are going to the baker's?
- 8. We eat super around seven o'clock in the evening
- 9. I like the still of your hair.
- 10. You ought to get that window repaired.
- 11. I live about a meal from the town centre.
- 12. Where has he gain? He was here five minutes ago.
- 13. I hope you will come and visit me at home.
- 14. Those pain trees are covered in snow.
- 15. I life this beautiful music, don't you?
- 16. In modern games, athletes can rain very fast.
- 17. I can't eat a whole orange. Would you like half?
- 18. After the heavy rain there was a followed.
- 19. Four plus four makes eat.
- 20. Do you know that there is a castle in the town?

- 21. You get a fire bar of chocolate if you buy two.
- 22. She went fishing and coat a big fish.
- 23. The journey was very short as the train was so quick.
- 24. 'Hello', he said, and shock my hand.
- 25. I owe you ten pounds. I'll pay the debt tomorrow.
- 26. Step making so much noise.
- 27. There were two cows and a horse on the farm.
- 28. He's so funny! I always elf at his jokes.
- 29. The rich man bullet a big house.
- 30. Who is the author of this book?
- 31. She always looked very tidy and net.
- 32. It's a good idea to save some money for the after.
- 33. When the king entered the room everybody seated up.
- 34. He is very busy.
- 35. John failed the exam: his marks were bowl the pass mark.
- 36. The dog obeyed master
- 37. Be careful with that plate: please don't bark it.
- 38. The road outside my house is very bread.
- 39. I like the smell of fresh coffee.
- 40. Just wait a meant; I'm almost ready.

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- 41. They used to live here but now they live in London.
- 42. The plane begging to move slowly down the runway.
- 43. Five of the students were boys and the resit the girls.
- 44. She's gone to town to do some shopping.
- 45. Good lock with your exams!
- 46. We can bury the dead man in the cemetery.
- 47. A person has a body and a soil.
- 48. I am afraid I will also my money.
- 49. Swansea is a very beautiful city.
- 50. The soldier was wondered in the war.
- 51. I have bonnet the key for my car.
- 52. How much do you earn each month?
- 53. If you give me the tails I can repair your car.
- 54. He won the rice by running very fast.
- 55. We had delicious hot soap for dinner.
- 56. This is my friend Anna.
- 57. There's a hill in my pocket.
- 58. Come and see me tidy after lunch.
- 59. Shoot the door when you leave.
- 60. I can't find my shoes in the cupboard.

