

# 17 Handwriting Difficulties In Grade 3

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## 1 INTRODUCTION

In the Basic Education curriculum in Oman, learners start English in Grade 1, at the age of 6, and writing is introduced in Grade 3. At this stage learners start to learn how to form and join letters. This is a challenging process; the children are also learning to write in Arabic and they are still developing the fine motor skills required for writing. Additionally, Arabic and English writing differ, above all in directionality. Although I had been aware of the challenges learning to write in English posed for my Grade 3 learners, I had never systematically studied these. This is what I set out to do in this study, with a particular focus on forming and joining English letters.

## 2 HANDWRITING

Handwriting is a skill that must be taught and mastered through practice (Sassoon, 1990; Clark & Ivanic, 1997). In this section I will discuss issues relevant to the learning of handwriting.

### 2.1 Aspects of Handwriting

Sassoon (1990) identifies a number of aspects of handwriting that need to be learned. These are the direction of writing, the movement of letters and height differentials. Incorrect movement is a basic handwriting problem and one that can lead to illegible handwriting. Sassoon adds that, once acquired, handwriting movements are difficult to change. It is therefore important for young learners to acquire basic handwriting movements correctly from the beginning.

Spacing is another aspect of handwriting that needs to be learned. Learners need to develop the ability to maintain a consistent space between letters. Sassoon (1990) says that children who space letters unusually widely may need guidance in altering their paper position.

## **2.2 Print and Joined Letters**

Handwriting can be print (i.e. separate letters) or joined. Some authors believe that print should be taught before joined writing. Sassoon (1990: 14), for example, says that “children should never be encouraged to join before they have internalized the correct movement of basic letters”. In contrast, Alfi (2003) and Warwick (1994) claim that we need to start with joins because joined letters help speed up writing. Warwick (1994: 6) says that “by making use of simple joins from the beginning, children experience the essentially cursive nature of handwriting in the very first things they write”. Alfi (2003) claims that teaching Arab learners to begin with printing has a negative affect on their ability to write cursively in English.

## **2.3 English and Arabic Writing**

English and Arabic writing have many similar features as well as differences. Alfi (2003) says that most of the strokes, patterns and directions appearing in English handwriting can also be found in Arabic script. Clockwise strokes, anti-clockwise strokes and top-bottom strokes are examples of these patterns. There are, however, many differences in the two scripts. Alfi (2003) notes that the main difference which causes difficulty is the direction. Arabic is written right to left, compared to left to right for English. So, when writers of Arabic move to write in English they need to overcome the habitual right to left direction of writing. Other differences between Arabic and English writing relate to spacing, slanting and joining letters.

## **2.4 Factors Affecting Handwriting**

Here I discuss some factors which affect the quality of handwriting - posture, paper position and pencil holding.

### **2.4.1 Posture**

Sassoon (1990) says that the way learners sit can provide useful clues to their handwriting difficulties. Research does in fact show that handwriting is better when learners have correct posture. Ball (1986: 298), for example, in her study of Arabic learners of English, concluded that “I have found considerable improvement in the handwriting of Arabic script writers when the position of their body is changed”.

### **2.4.2 Paper Position and Pencil Holding**

Paper position and pencil holding also affect handwriting. Sassoon (1995) says that with a script that moves from left to right, it is usually best for the writer to place the paper to the side of the hand that writes so the they can see what they are writing. Paper position and pencil holding are particularly likely to influence the slant of letters.

### **3 METHOD**

#### **3.1 Research Questions**

The aim of this study was to examine Grade 3 learners' difficulties in forming and joining English letters. Specifically, my research questions were:

1. What difficulties do Grade 3 learners have in forming letters?
2. What difficulties do they have in joining letters?
3. What factors affect their handwriting?

#### **3.2 Participants**

The participants in this study were four learners from one of my Grade 3 Basic Education classes. They were 9 years old and in their second year of learning English. In Grade 2 they had done pre-writing activities but this was the first year where they were actually learning to write in English. I chose these four learners because I had noticed that their handwriting was problematic.

#### **3.3 Data Collection**

I used a range of strategies to collect data for this study.

##### **3.3.1 Observation**

I observed the four learners over a period of two semesters and recorded my observations on two checklists - one for forming letters and another for joining letters (see the Findings section below for details of these checklists). In the first semester I focused on forming letters, observing the individual learners at different times; in the second semester I focused on joining letters. I also took field notes during the observations to record points I noted about the handwriting of the four learners. The observation data allowed me to study writing movements, the direction of letters and heights of letters. Additionally, I took digital photos to study learners' posture and pencil and paper positions while they were writing.

##### **3.3.2 Analysis of Learner Writing**

I also collected samples of the learners' writing and analyzed the way letters were formed and joined. Work from the first semester was used to study how learners formed letters while the joining of letters was studied in the writing collected in the second semester.

##### **3.3.3 Verbal Report**

The third source of data for this study were think-aloud protocols. I conducted one think-aloud with each learner. This involved asking the learners to do some handwriting and asking them questions (in Arabic) while they were doing it. The questions encouraged them to tell me what they were trying to do and what they were thinking while they were doing the handwriting. I recorded and transcribed their answers. This strategy provided further insight into the difficulties the learners experienced while forming and joining letters.

## 4 FINDINGS

### 4.1 Observations

#### 4.1.1 Forming Letters

Table 1 summarizes the results of the observation checklist focusing on each learner's ability to form letters. Learners 1 and 3 never displayed correct letter formation. Learner 2 had problems in all areas at least sometimes, while Learner 4 was the best at forming letters, despite problems in two of the three aspects of handwriting observed.

Table 1: Observations of letter formation

Aspects of handwriting	Learner 1			Learner 2			Learner 3			Learner 4		
	1	2	3	1	2	3	1	2	3	1	2	3
Clockwise strokes correct			✓			✓				✓		✓
Top-bottom strokes correct			✓			✓				✓		✓
Anti-clockwise strokes correct			✓						✓			✓

Key: 1 = Always; 2=Sometimes; 3=Never

My field notes showed that Learner 1 confused *n* with *h* in letter size. He also started *m* from bottom and this suggested problems with entry strokes. Most of his letters started from the bottom and moved up. Learner 2 also had problems with the movement of his handwriting. He knew top to bottom movements of letters, but sometimes wrote *t* incorrectly - writing the cross bar from right to left. Learner 3 also had direction problems, writing *n* from right to left and the cross bar in *f* also from right to left. Similar problems of direction were evident in the writing of Learner 4. She sometimes wrote *u* from bottom to top. The entry strokes for *n* and *m* were incorrect, but she followed the correct direction in writing *q*, *y*, and *g*.

#### 4.1.2 Joining Letters

Table 2 summarizes the results of the observation checklist focusing on learners' joining of letters.

Table 2: Observations of letter joining

Aspects of handwriting	Learner 1			Learner 2			Learner 3			Learner 4		
	1	2	3	1	2	3	1	2	3	1	2	3
Appropriate joining			✓			✓				✓		✓
Ease of joining			✓			✓				✓		✓
Smooth transitions			✓			✓				✓		✓

Key: 1 = Always; 2=Sometimes; 3=Never

Learners 2 and 4 had problems in all areas sometimes. Learner 1 always had problems in two areas. Learner 3 had most problems in joining letters.

My field notes showed that Learner 1 joined letters in the wrong direction, slowly and with difficulty. He also had difficulty with top-bottom joins and sometimes added joins after printing (e.g. when joining the letter *q*). He also joined *n* as if it were *m*. Learner 2 had the same problem of moving slowly while joining. He also added the joins after printing letters and lifted his hand to see the next letter of the word. The situation for Learner 3 was similar. His letters seemed to be added to each other without any sign of joining movements. Unlike the others, Learner 4 used joined script smoothly and easily. She had flowing joins but lifted her hand when joining *r* and *w*.

### **4.1.3 Posture and Position**

Photos showed that both Learner 1 and Learner 2 were almost lying on their desks. Their head was bending over the paper and they held the pencil very close to the point as if they were digging with it. The paper was pushed very close to their body and held in place with both hands.

Learner 3's paper position was poor. It was on the table in a completely horizontal line. His head was also bending over the paper. He did not hold the pencil far enough from the point to allow him to see what he was writing. Learner 4 had similar problems with paper position. She found it difficult to write because her head was bending over the paper. However, she did hold the pencil away from the point, so she could see what she was writing.

## **4.2 Learners' Work**

### **4.2.1 Forming Letters**

Learner 1 wrote most letters badly. He formed *d* and *q* in a forward sloping shape. The down strokes *j*, *u*, and *t* were formed badly as well as the diagonal strokes *f* and *s*. The letters were also not on the base line, and they were too close to each other.

Learner 2 had bad formation too. He formed curves badly (as in *a*, *d*, *g*, *q*). The diagonal *f* had a backward sloping shape. Letters were also inappropriately placed between lines as in *f*, *g*, *q*, *u* and *m*. Spacing between letters was acceptable, but *e*, *r*, and *y* were written in a larger size than other letters.

Learner 3's writing also showed several problems. He formed curves badly (e.g. *c*, *o*, *q*) and they were not on the base line. His down strokes were acceptable, but there was a noticeable problem with down-up strokes like *m*, *r*, *h*. Most of his letters were not placed correctly on the lines and there was hardly any spacing between letters. Diagonal strokes (e.g. *s*, *f*) were formed very poorly, with no focus on the beginning point and base line. They were also large in size.

Learner 4 formed letters relatively well. She formed curves and down strokes appropriately, but had a problem forming down-up letters, such as *m*, *r*, *h*. Her diagonal strokes were acceptable but she had a problem keeping to the base line

with letters such as *g, y, q, e*. They were also written in a large size.

#### **4.2.2 Joining Letters**

Learner 1's writing highlighted serious problems with joining letters. This might be because of the bad formation of most base line letters (such as *a, i, l, t*). His bottom joins showed poor use of exit strokes. Learner 2 had acceptable top joins, but his exit strokes were incorrect in forming bottom join letters such as *u, l, and t*. Letters were very close to one another.

Learner 3's problems in forming letters meant that his joins were also very poorly formed. Exit strokes for bottom joins were inappropriate, with no focus on the correct height of each letter. Learner 4, once again, differed from the others by having acceptable letter formation, letter size and usage of bottom joins. For bottom joins she used exit strokes correctly. However, she did not show correct control of top joins. She just used straight lines.

#### **4.3 Verbal Reports**

I did one verbal report with each learner. For two learners I focused on letter formation, while for the other two I focused on joining letters. At the outset I should state that this exercise did not generate the insights into learners' handwriting practices I had hoped for. The learners generally were not able to say much about how they were trying to form and join letters while they were doing a piece of handwriting.

Learner 1's comments as he wrote showed that he did not pay much attention to spacing between letters and to keeping to the base line. However, he was aware of the correct direction of English writing. He said that having dotted letters in his book to write over helped him form letters, although he still needed arrows on these letters to show him the correct movements. During the verbal report exercise, I also noticed that he had bad posture and pencil holding position. He held the pencil very close to the point. As a result of bad posture and pencil hold, to form letters correctly and keep to the base line he needed to place the paper very close to him.

Learner 2 had also developed bad movements in forming letters. He started with the wrong direction in forming letters like *a*. He was also unable to join letters without stopping. He wrote very fast but did not pay attention to the sentences he was copying and his eye-hand co-ordination was not good. Learner 3 was shy and did not say much during the verbal report exercise. He confused the direction of some letters. He also used cross bars wrongly as well as having bad eye-hand co-ordination. He had problems with the size of letters too. Learner 4 had some problems forming letters, particularly *o*. She used straight lines for top joins and had bad paper and chair positions. She thought that placing the paper very close to her right hand helped her write fluently.

## 5 DISCUSSION

Table 3 summarizes the results of this study. It shows that the learners had five key problems in forming and joining English letters.

*Table 3: Summary of difficulties in forming and joining letters*

Key Difficulties	Causes
Directionality	<ul style="list-style-type: none"> <li>• bad recognition of entry strokes and movements</li> <li>• poor control of letter shapes</li> <li>• bad posture and paper position</li> <li>• poor control of pencil</li> </ul>
Poor letter size distinction	<ul style="list-style-type: none"> <li>• guide lines on handwriting paper do not exist in Arabic</li> </ul>
Poor hand co-ordination	<ul style="list-style-type: none"> <li>• limited eye-hand co-ordination</li> <li>• limited attention given to models and examples</li> </ul>
Inappropriate spacing and slanting	<ul style="list-style-type: none"> <li>• Arabic is a language of joining and slanting to the left</li> <li>• learners copy written work fast and with little attention</li> </ul>
Inappropriate joining	<ul style="list-style-type: none"> <li>• Arabic is a language of lifting pen (learners stop to insert dots in Arabic)</li> <li>• poor letter formation</li> </ul>

Directionality was the most common problem in the writing of the learners studied here. It was most likely caused by insufficient practice in writing from left to right together with the influence of Arabic, which is written right to left. These learners needed more practice in recognizing entry strokes and letter movements and controlling letter shapes; they also needed to be made aware of the posture and pencil position required for good handwriting.

Learners also had difficulties in writing letters in an appropriate size. English handwriting is taught using sheets of paper with guide lines which help learners make their letters the right size. Learners seemed to pay limited attention to these; the absence of such support in learning to write Arabic may have been a factor here.

Similarly, learners seemed to pay insufficient attention to the examples and models of letter forming and joining that they were given. They were unable to coordinate their hand movements in order to imitate those models; there may have been issues to do with their motor development here but most likely it was simply a lack of attention to the examples which caused these problems with hand co-ordination.

Inappropriate spacing and slanting was the fourth recurrent area of difficulty. Poor posture and position may have been issues here, but I think that once again the influence of Arabic writing was mostly responsible for learners' problems in these areas. Additionally, learners, as noted above, did not pay enough attention to the examples they copied; they tended to do this copying too quickly.

Finally, problems to do with inappropriate joining were underpinned by problems in the basic formation of letters. However, the fact that in Arabic the pen is lifted from the page for dots to be inserted may have also influenced the regularity with which learners paused when joining English letters.

These findings support a number of points covered in the literature review earlier. Writing is a skill that needs to be consciously learned and this study has highlighted a number of areas where attentive practice would lead to improvements in learners' handwriting. This study also shows the influence of Arabic writing on the writing of learners of English. Especially at an age where both Arabic and English writing are being learned simultaneously, the differing directionality of the two languages makes learning to write English particularly challenging.

## 6 CONCLUSION

The key recommendation I would make as a result of this study is that Arabic learners of English need to be given more time than they are at present to practise English handwriting. This practice also needs to be based on an awareness of specific handwriting difficulties which Arabic learners of English may experience and which this study has highlighted. Further research of this kind could improve on this study in several ways; a larger group of learners could be studied; more effective ways of eliciting learners' thoughts about English handwriting could be considered (verbal reports were not effective here); and other teachers of English could also be studied in order to analyse their views and experiences of teaching handwriting. Research along these lines would not only allow us to better understand our learners' handwriting difficulties but also lead us to consider effective ways of helping learners overcome them.

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