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A rapid learning tool to learn a new language using Graphic intermediaries (Gi)

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Abstract

Learning a new language is a rewarding task for an individual as well as a Nation. We describe a method to ease this formidable task. A letter in a unknown language (Morse code in our study) can be incorporated in a picture along with an object or a concept, the name of which begins with the corresponding letter of a known language (English in our study). This picture will serve as pictorial translator (Graphic Intermediary) between known and unknown languages until the patterns are carved in the brain. Two batches of 35 soldiers (Army Medical Corps) with basic knowledge in English were used as control and study groups. The control was simply taught the English letters and corresponding Morse codes while graphic intermediary was used in teaching the study group. Both sides were taught for 45 minutes and they were given two test papers for each group, one for English to Morse translation and other for Morse to English translation. 25/35 (71%) of the study groups achieved over 75% while only one person in the control group achieved the said level in English to Morse. In Morse to English 12/35 (34%) of the study group achieved over 75% and none of the control group reached the level. The effectiveness, simplicity and speed of new tool was very much evident in the study. Translation using Graphic Intermediary can be extremely useful method to teach and learn a new language.

Introduction

Learning a new language is a formidable albeit rewarding task. An effective and efficient method to achieve so may be of immense benefit to individuals as well as for the national development. In our study we experimented with a method where translation between codes of known and unknown language was made using a specially designed picture as an intermediary which was proven to be simple, speedy and accurate.










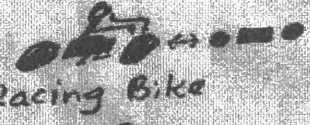

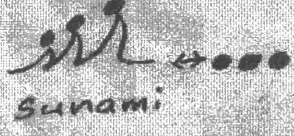

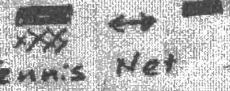


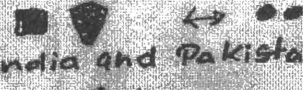


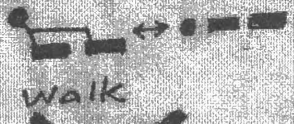
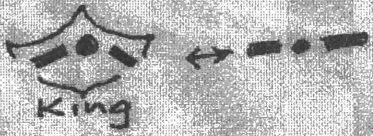
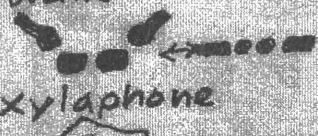


Methodology

Languages are designed for better communication between human beings. The letters are in effect codes (Bono, 1970). A letter in a unknown language/code (Morse Code in our study) in its very physical form, some times minimally changed was incorporated in a picture which also contained either an object, the name of which begins with the corresponding letter (English in our study) or a concept represented graphically, the name of which begins with corresponding letter of known language. Alternatively the known letter itself can be incorporated in the picture. This picture known as Graphic Intermediary (GI) serve the function of translator between known and unknown languages until with repeated use the patterns are carved in the brain. When that stage is reached translation tend to run through GI in a fraction of a second. The English- Morse code translation together with GI prepared for the study group is shown in figure 1.

Two batches of 35 soldiers from Sri Lanka Army Medical Corps (Vol.) were taken as control and study groups with the kind permission of the commanding officer. Having passed their GCE O/L Examinations and functioning as Nursing Assistants all of them had basic knowledge in English. They were between 20 and 35 years of age. The members were allocated to test and study groups using blind draw of group names.

Both groups underwent the study on the same morning. None of the participants had any previous knowledge about the Morse code. Both groups were taught Morse code for 45 minutes. The Control was simply taught the English letters and corresponding Morse codes while GI was used in teaching the study group. The English alphabet and corresponding codes were run through four times during the session. Then each group was given two test papers, one for English to Morse Translation and the other for Morse to English. Each paper had twenty letters or codes to be translated and time allotted for a paper was 10 minutes.

Figure 1. English - Graphic Intermediary -Morse Translation Chart

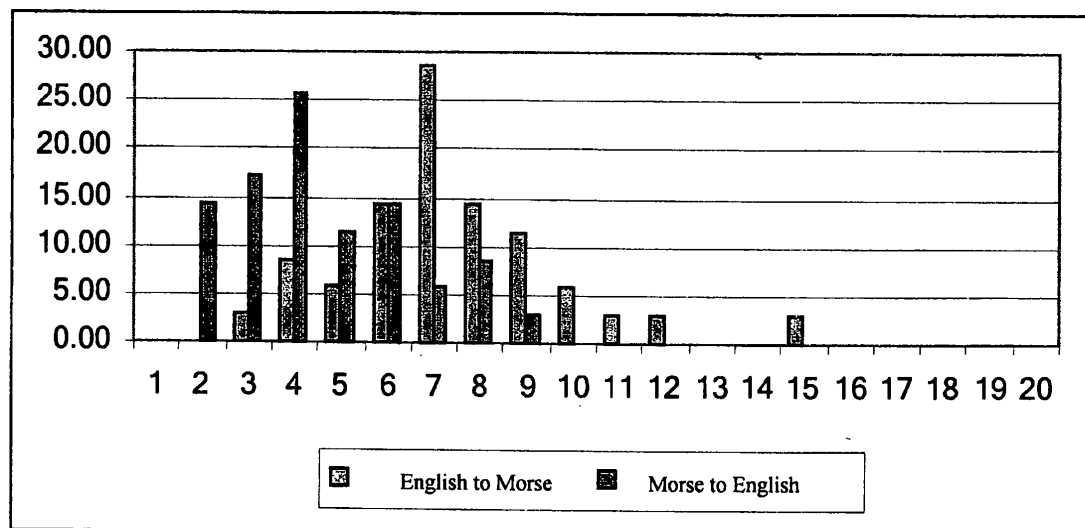
A ↔  ↔ Angle	N ↔  ↔ Net
B ↔  ↔ Bicycle	O ↔  ↔ Open Box
C ↔  ↔ Car	P ↔  ↔ Parents
D ↔  ↔ Dog	Q ↔  ↔ Queen
E ↔  ↔ Eye	R ↔  ↔ Racing Bike
F ↔  ↔ Face	S ↔  ↔ Sunami
G ↔  ↔ Gate	T ↔  ↔ Tennis Net
H ↔  ↔ Houses	U ↔  ↔ Union
I ↔  ↔ India and Pakistan	V ↔  ↔ Vass
J ↔  ↔ Jet	W ↔  ↔ Walk
K ↔  ↔ King	X ↔  ↔ Xylaphone
L ↔  ↔ L-Chair	Y ↔  ↔ Young King

Results

Table 1. Performances of the Control Group in English to Morse and Morse to English translation tests

Marks/20	English-->Morse		Morse-->English	
	No	No/35*100	No	No/35*100
1	0	0.00	0	0.00
2	0	0.00	5	14.29
3	1	2.86	6	17.14
4	3	8.57	9	25.71
5	2	5.71	4	11.43
6	5	14.29	5	14.29
7	10	28.57	2	5.71
8	5	14.29	3	8.57
9	4	11.43	1	2.86
10	2	5.71		0.00
11	1	2.86		0.00
12	1	2.86		0.00
13		0.00		0.00
14		0.00		0.00
15	1	2.86		0.00
16		0.00		0.00
17		0.00		0.00
18		0.00		0.00
19		0.00		0.00
20		0.00		0.00

Figure 2- Performances of the Control Group in English to Morse and Morse to English translation tests

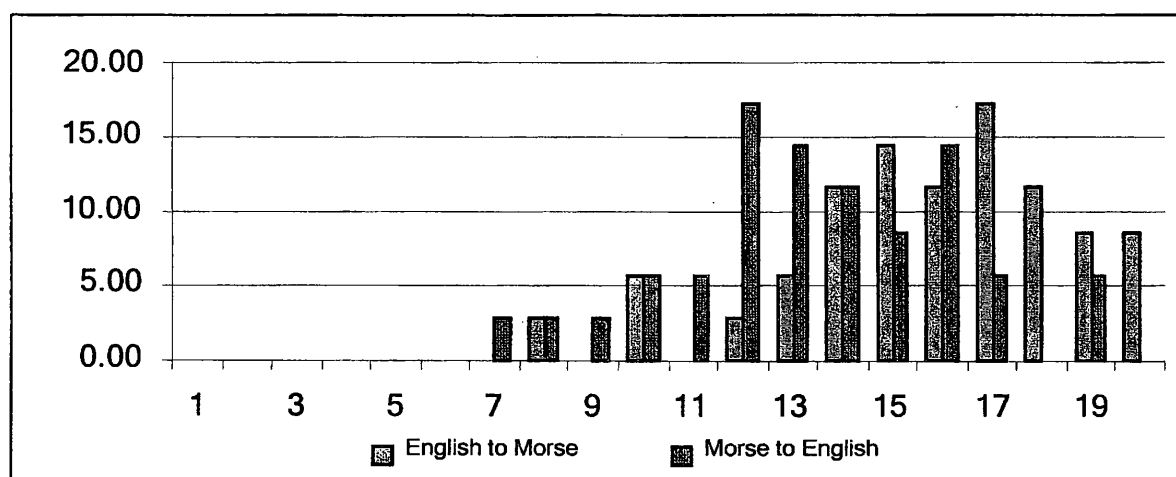


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Table 2. Performances of the Study Group in English to Morse and Morse to English translation tests

Marks/20	English-->Morse		Morse-->English	
	No	No/35*100	No	No/35*100
1		0.00		0.00
2		0.00		0.00
3		0.00		0.00
4		0.00		0.00
5		0.00		0.00
6		0.00		0.00
7		0.00	1	2.86
8	1	2.86	1	2.86
9		0.00	1	2.86
10	2	5.71	2	5.71
11		0.00	2	5.71
12	1	2.86	6	17.14
13	2	5.71	5	14.29
14	4	11.43	4	11.43
15	5	14.29	3	8.57
16	4	11.43	5	14.29
17	6	17.14	2	5.71
18	4	11.43	0	0.00
19	3	8.57	2	5.71
20	3	8.57	0	0.00

Figure 3 - Performances of the study Group in English to Morse and Morse to English translation tests



25/35 (71%) of study group achieved 75% and over marks while only one person of controlled group achieved the said level in English to Mores Translation. In Morse to English translation 12/35(34%) of the study group achieved 75% and over and none of the control group reached the level.

Discussion

The direction of research within a Nation is best guided by National requirements. Benefits of learning a new language is innumerable for an individual as well as for the Nation. Acquisition of new knowledge, employment in foreign countries, Diplomatic service , Tourist industry as well as conduct of successful business negotiations are among few advantages for the individual. The Racial harmony, peace, socio-economic improvement in a competitive global environment are some of the benefits to the Nation. However ability to learn a new language is hampered by inadequacies in teaching methodology. As those who need to learn a new language spans the full spectrum of intelligence and education teaching methods should be simple as possible. Our method of using a Graphic Intermediary (GI) is based on certain facts and assumptions. Firstly

the most effective way to remember is by linking new knowledge to existing knowledge (Anant, 1993). Secondly In majority of the humans visual image create the most lasting impression on the memory surface. Thirdly bizarre pictures are better remembered than what is logical and likely to encounter in normal life. Concept of imagination helps forming bizarre pictures as required. (Danzel, 2001) Finally repetition has proven to cement the link between known and unknown (Perera, 2003).

Morse code which is a replica of English letters in the specific patterns of the long and short signals is a method of communication dating back to the days of telegraph. Designed by Samuel Morse it has a advantage in its simplicity. Also, the transmission requires one form of act under senders control which can be perceived by at least one of the senses of receiver. This may be a light signal, waving of a flag, noise of any kind etc. With the advent of voice transmission and subsequent improvements in the communication technology Morse code was made obsolete. However, it retained its usefulness in naval and military activities as well as in survival and rescue operations where technology is reduced to minimal or absent. We selected Morse code for Its simplicity which allows us to teach and test competency in very short period. Our sample was randomly allocated but small. They had basic knowledge in English required for the study and had no prior knowledge of the Morse. The differences were striking enough to outshine any biases which can be attributed to sampling errors. The fact that period of instructions as well as the time allotted for answers were very brief for a new language adds to the proof of efficiency of GI.

Conclusions

The effectiveness, simplicity and speed of new tool was very much evident in the study. We conclude that translation using GI is an extremely valuable method to teach and learn a new language. Further studies should be conducted to extend this concept.

Acknowledgements

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