# THE USE OF VISIPITCH IN THE MANAGEMENT OF STUTTERING

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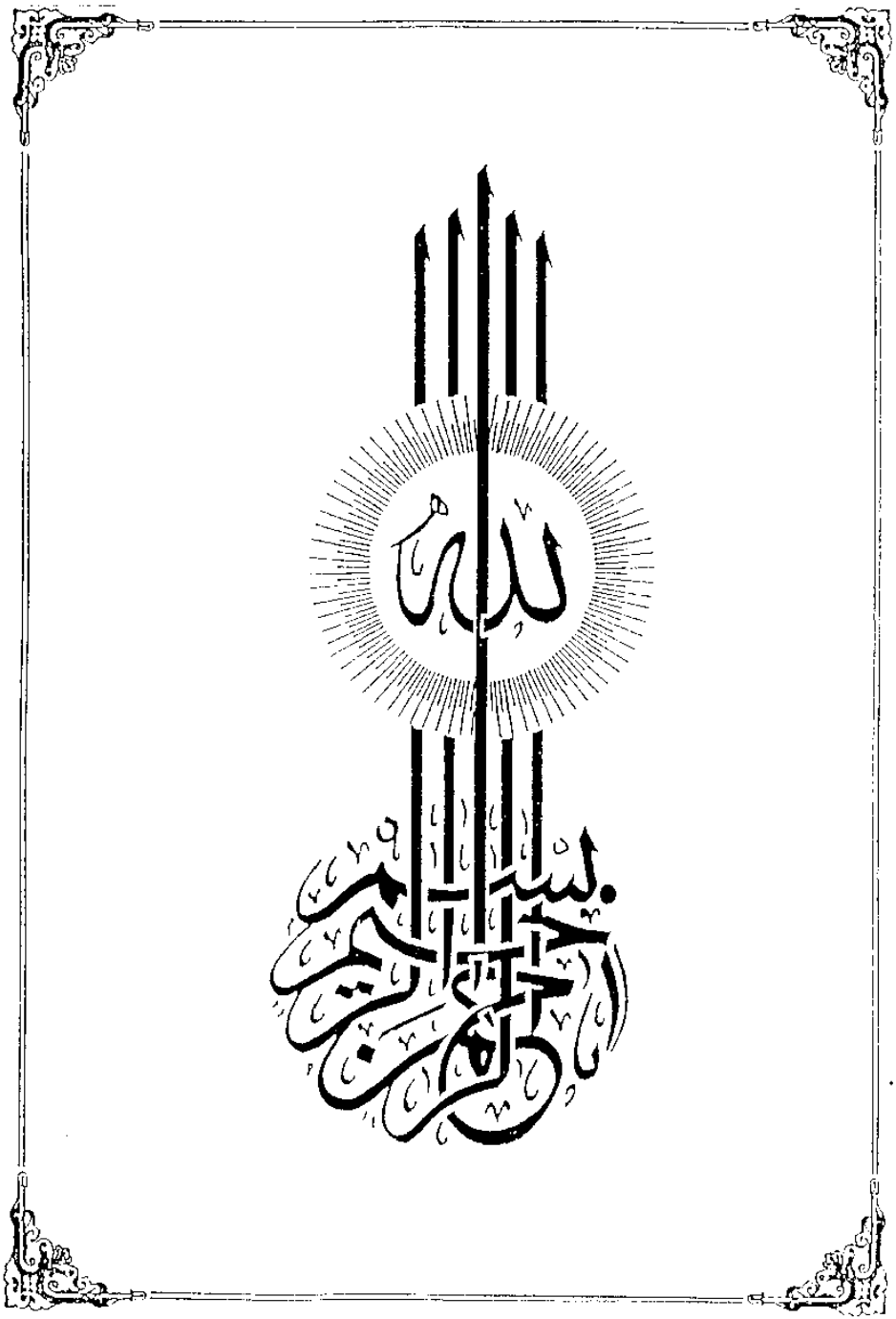

بسم الله الرحمن الرحيم

**قالوا سبحانك لا علم لنا إلا ما علمتنا**

صدق الله العظيم

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# INTRODUCTION

The use of computer aided therapy is rapdily growing in the field of communication disorders. Computer aided therapy is feasible and may offer considerable advantages. It increases user's motivation by providing a medium that presents stimuli in an attractive manner. This helps to avoid boring repetition of activities or controlling responses from the clinician ***(Shriberg et al., 1989).***

One of the main advantages of computer aided therapy is the provision of adequate effective biofeedback mechanism. Biofeedback can be defined as "real time" information about physiologic activity that is mediated by the nervous system, but is not necessarily subjected to voluntary control processes ***(Volin, 1993).*** Recent microcomputer-based technological advances offer new and exciting modalities of feedback for speech intervention ***(Volin, 1991).***

Visi-pitch is a program utilizing visual biofeedback mechanism. It can extract and display different vocal parameters in real time either from a live voice via a microphone or from a tape recording ***(Horii, 1983).***

Visi-pitch can produce both frequency and intensity profiles or only one of these parameters independent of the other. This allows the clinician to show speech and voice characteristics on the screen of the computer

*(Cronk, 1986).* So, Visi-pitch can be used in the treatment of the following communicative disorders:

- Voice disorders
- Hearing impairment
- Motor speech disorders
- Dysfluency and
- Post-laryngectomy aphonia *(Horii, 1983).*

It is used to help the client to match speech/voice characteristics modeled by the clinician and help the client to work to reach his/her best attempt *(Visi-Pitch Application Manual, 1992).*

Visi-pitch can also be used as an assessment tool, to obtain quantitative data on the acoustic characteristics of a client's voice/speech. It can measure the following parameters:

- Fundamental frequency
- Amplitude
- Perturbation value
- Pitch range
- Maximum phonation time
- Diadochokinetic rate
- Percentage of voiced/unvoiced phonemes and pause time of any utterance *(LaBlance et al., 1991)*

So, it can be used to assess some communicative disorders such as: stuttering, hearing impairment, and voice disorders ***(Visi-Pitch Application Manual, 1992).***

## Aim of the work:

To review the uses of Visi-Pitch and its uses in the management of stuttering in order to study its efficacy in the treatment of this condition.