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# Using Email to Teach Literacy

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**Abstract**

The literacy level of adults in numerous developed countries remains a concern for many governments despite the considerable resources being expended on attempting to raise levels. Increasing the general level of literacy is recognised as an important step in improving the well-being of children. The current method of teaching literacy in schools is not meeting the needs of many and perhaps new and innovative approaches can be explored. Children are spending increasingly more time communicating electronically and this paper on vocabulary development investigates the strategy of incorporating the teaching of

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literacy into Mifrenz, a children's email application ([www.mifrenz.com](http://www.mifrenz.com)).

Vocabulary can typically be divided into groups of words from frequently used words to ever more specialized words. This vocabulary tool, analyses emails that individual children send and it keeps a record of the words that the child has already used to determine at which level the child is currently working. Each time the Mifrenz application is used, the child can choose to click on the 'Word of the day' – i.e. a word that 1) is at their level, 2) has not yet used by the child and 3) has not yet been displayed to the child. The child is also given the meaning of the word and an example of how it can be used in a sentence.

Mifrenz is a multi-lingual application and therefore the new words that are displayed must match the language the child is using. The database, background logic and user interfaces have been designed to allow for an unlimited number of languages to be used.

**Keywords**

Literacy, Children, Kids, Vocabulary/words, Email, Safe, Control

**Introduction**

Mifrenz is an email application with a multi-lingual interface designed specifically for children (Hunt, 2011) and provides the ability for parents to easily control with whom their children share emails. The use of email by children has been suggested as a useful way in which to increase the literacy level of children (Takahira, 2008). Following on from that concept, it was decided to add a 'Word of the day' feature to

Mifrenz to help extend their exposure to new vocabulary and increase their literacy knowledge.

### **Methodology**

The main question of this work is one of 'Computing practice' in determining if it is feasible to implement a useful 'Word of the day' feature to the Mifrenz email application.

### **Design**

Nation (1993) refers to studies which encourage the need for children to learn the 1<sup>st</sup> 1,000 most frequently used words. In response to this the word bank on the Mifrenz data base includes words from the well-known Dolch list (*Dolch, 1936*).

In the design, it is proposed to record which of the words in a list a child uses when they type an email. In this way the 'Word of the day' can be displayed from the same list/level that the child is currently at educationally. If a child clicks on the 'Word of the day' they will be given an explanation of the word along with an example of it being used in a sentence.

The current database has been modified to store the following:

- Lists of words and their level along with an explanation of the word and an example of how the word can be used in a sentence.
- Words that a child has typed in an email.
- 'Words of the day' that have already been displayed to a child.
- The level that a child is at (can be calculated from the highest level word that a child has previously used in emails).

### **Implementation**

A working prototype (using the Java programming language) has been completed and testing is currently underway. A major aspect of this work is the entry of the words and their

explanations/examples of use. This is particularly difficult given that the Mifrenz GUI can use any language e.g. English, Spanish etc., and it presents practical challenges in entering the required data. Therefore a screen is being developed to allow a parent to enter the words at the correct level, accompanied by an explanation and example sentence using the new word. To enable this to function in a multilingual environment, an expert in each of the languages will need to enter the word level data.

### **Results and Conclusions**

Modification of the Mifrenz application to incorporate a 'Word of the day' feature has been shown to be feasible. The quantity of data that will need to be added is a potential barrier to effective use, but allowing a parent to add their own words is an attempt to alleviate this – particularly for languages other than English.

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