"COGNITIVE STYLES' RURAL STUDENT ATTITUDE AND ACADEMIC PERFORMANCE IN ENGLISH"

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Abstract

This study sought investigate the influence of cognitive styles and attitude on the academic performance of students in English. We implement this system similar to that of student attitude performance in English and English grammar.A students' questionnaire containing three sections viz SiegelCognitive Style Test, English Students Attitude Test and English Achievement Test was administered to the school students offering English.Data collected forconducting the four types of teaching method were subjected to data analysis using the Dijkstras' algorithm. Based on these analysis,following results emerged. There is a significant difference in student academic performance in English due to their cognitive style; students with analytic cognitive styles performed significantly higher than relational and inferential. There positive relationship between students' attitude to English and their performance in English grammar.Based on these results, it was recommended that English students should show greater intrest in the different teaching methods of the subject using cognitive styles in a way of motivating students to learn the subject.

Keywords: cognitive styles, viz siegel, r tool.

1. Introduction

1.1 Cognitive Style

Cognitive styles is the control process or style which is self-generated, transient, situational determined conscious activity that a learner uses to organize and to regulate, receive and transmit information and ultimate behavior.The purpose of this study is to find out the extract to which student's cognitive styles and attitude influence their academic performance in English. Specifically, this study sought to determine: (i) If there is any significant influence of student cognitive styles on their performance in English and (ii) if there is which the best

isteaching method in this subject, any relationship between students' attitude and their performance in English.

The consideration of cognitive styles and student academic achievement are important criteria in the development and implementation of both curriculum and instructional performance. This study would also help to provide some information for curriculum designers and teachers in order to teaching techniques to utilize relevant approaches meaningful learning of English by students.

1.2 Test Conducting
The instrument used for this study was a questionnaire conceded of three section. The knowledge of student cognitive style test would be very useful in both academic and career counseling.
English Student Attitude Test
Cognitive style Viz Siegel Test
English Achievement Test

1.2.1 English student attitude test
First teachers can conducting the attitude test in English grammar. This cognitive style test was made up of 50 questions which required the responds to the student performance in English grammar. This test can help of the student gain the knowledge in English subject.

1.2.2 Cognitive viz siegel test
The cognitive style test was conducted as familiar pictures which is required the respondents to analysis for picture andto write the command in particular picture. This type of test is useful for thinking capacity to analysis student and brainbehavior of the student.Thereforetoavoidthe wide range of practical problems.

1.2.3 English achievement test
To conduct the all test marks analysis using Dijkstras' algorithm. Finally conducting the achievement test. In this test to calculate the best teaching methods in English grammar.

2. Methodology

2.1 Teaching Techniques
The researcher then studied the independent variable in retrospect for research designed in four different type of teaching techniques. Different way of teaching method is helpful for the student best performance in English.
  (i)   Staff teaching
  (ii)   Student teaching
  (iii) Pictures representation
 (iv)   Video teaching

  - Staffs can teaching the English grammar then student attend the test.
  - The subject can teaching the pictorial representation then student attend the test.
  - One student can teaching the same subject then students can attend the test.
  - Grammar can teaching the student forvideo teaching method, then student can attend the test.

Conducting for all test marks to analysis using Dijkstras' algorithm, finally student can attend the achievement test.

2.2 Introduction to R tool

R is an open source implementation of the special language. The language simplifies many statistical computations and can be a powerful tool. The only hardware requirement for most of the R tutorials is a PC with the latest free open source R software installed. R has extensive documentation and active online community support. It is the perfect environment to get started in statistical computing. It offers plenty of options for loading external data, including Excel files. R isa programming language, and there is no graphical user interface. However, with some practice, this kind of environment makes it easy to quickly code scripts and functions for various statistical purpose.

A line that being with '<'is input at the command prompt. If you type something at the command line and decidedto not execute, press the down arrow to clear the line and pressing up arrow gives you that previous executed command. Results has producing the graph representation,

Shortest path diagram in R
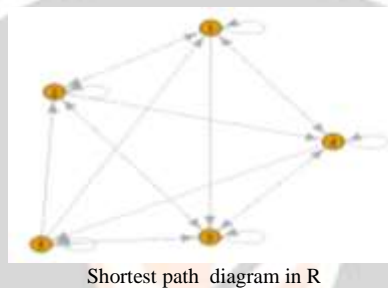
2.2.1 Functions in Rpackages

Functions in R was grouped into packages, number of which are automatically loaded when you start R. These include "base", "graphics", "Matrix" and "mass". Many of the most essential and frequently used functions come in these packages. Installing package for following code,
Install. Packages ("package name")
That you need to install a package only once, but that if you want to use it, you need to load it each time you start R. Then to call the library of user packages,
Library (package name)

2.3 Dijkstra's Algorithm

The basically a system for solving the problem. For us human, looking a 2D grid with many objects we can easily tell which path the character should take to reach his or her goal without thinking much about it, Dijkstra's algorithm is used find theshortest path. It is many opinion that understanding this algorithm will did in understanding more complex algorithms.What we want to try to do is translate those semi-subconscious mental steps to a list if steps that anyone can repeat to get the same answer every time.

Finding the lowest-cost path between two specified vertices of an edgeweighted graph, provided the weights are all non-negative.When developing the knowledge is very common problem and many solutions exist. For example, computer networks using called link state routing-such as the well-known Open Shortest Path First(OSPF).If we discuss the fundamentals of Dijkstra algorithm to find the shortest way of teaching method.

If we get the different test marks in studentsentry test markand four different test marks to put the input for this algorithm.To call the library for igraph (),Matrix () and mass () packages..

Algorithm steps
1. INITIALIZE SINGLE-SOURCE (G, s)
2. S<- {}   // Swill ultimately contains vertices of final shortest-path weights from s
3. Initialize priority queue Q i.e., Q<-v[g]
4. While priority queue Q is not empty do
5. U← EXTRACT_MIN (Q) pull out new vertex
6. S← S U {u}   //perform relaxation for each vertex vadjacent to u
7. For each vertex v in adjacent[u] do
8. Relax (u, v, w)
Result producing the graph representation
These algorithm steps to compute the shortest path. First we getting the student marks (Five test marks) low mark in any one of the test, then set the null values. Call the library for igraph (), Then using the adjacency matrix to calculate the max,min values to find the shortest path.
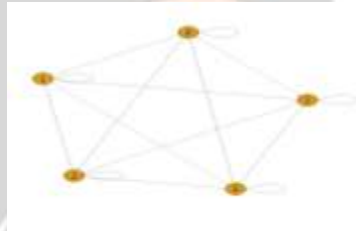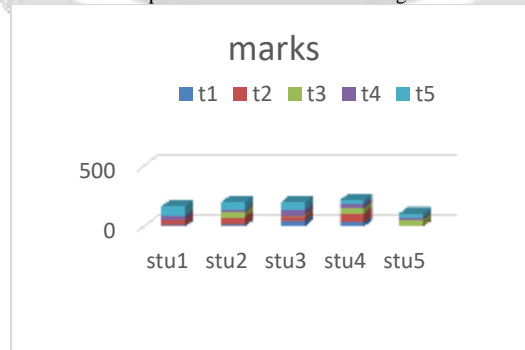

To find the path from five test marks

The shortest path for video teaching method. Students can interested for the videoteaching method,this method to producing the best result for the students.

Shortest path in method video teaching method

Student marksusing graph diagram

3. Results and Discussion

Student first can enrolled the details for registration form,than attend the attitude test.

Figure 3.1: Attitude Test

Figure 3.2: Viz Siegel test

Figure 3.3 viz Siegel test database

3.1 Registration form

Student first can registered our detailsin that fields are involved

Table 4.1 Registration form

Field name	Type	Size	KeyConstraint
Name	Varchar	20	-
Username	Varchar	20	Primary key
Password	Number	10	-

Retype password	Number	10	-
Gender	Varchar	10	-
Department	Varchar	30	-
State	Varchar	30	-

3.2 Login form
Student must entered the correct username and password, otherwise through the error.

Table 4.2 Login form

Field name	Type	size	Key Constraints
User name	Varchar	20	Foreign key
Password	Number	10	-

Conclusion

The findings of this study have shown that cognitive styles have significant influence on students' academic performance in English is a function of their attitude. The findings underscore the need for application of cognitive styles by students' for proper understanding of English grammar for video teaching method. In the main students with analytic cognitive style have a higher academic performance than student exam results for video teaching method.

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