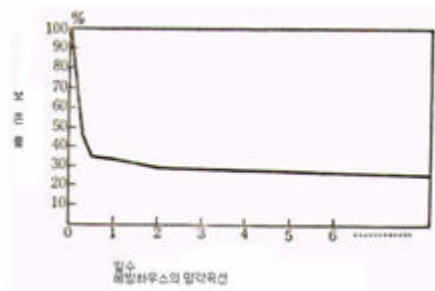


Ebbinghaus

(音節) (暗記) (忘却)

20	47%
2	66%
6	75%
31	79%



(保存率)

79%가 20 47%가 2 66%가 , 6 75%, 31
 20 (逆向抑制 retroactive inhibition)
 21 (順向抑制 progressive inhibition)

가

가

Frederic Vester

Denken, Lernen, Vergessen—Was geht in unseren Kopf vor, wie lernt

das Gehirn, un wann läßt es uns im Stich?

(多重感覺經路)

(思考)

가

(Lesen)

1

(Hoeren)

2

(Tasten),

(實物)

(映像)

(Sehen)

5

4

12

(映像)

가

(錄音)

(視聽)

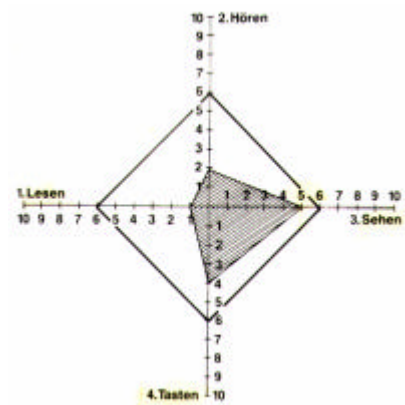
(再生)

(原語民)

(Role Play)

Hellen Keller 가 2
Alphabet 26

가
600



(品川嘉也)

Vester

Vester

가 가

. Freud

(image)

가 !

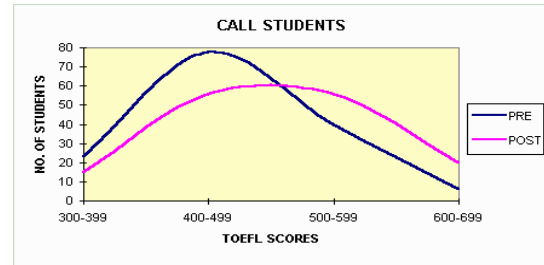
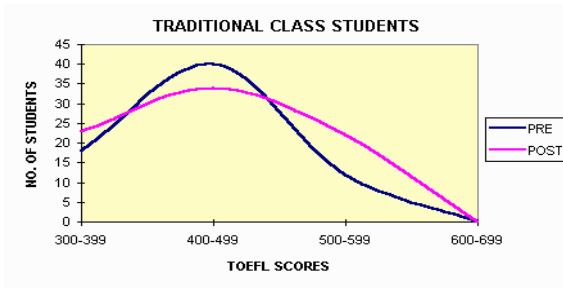
Foreword 2

Malaysia University
Multimedia Program
Institutional TOEFL
CALL

Karen Yeok-Hwa Nge

Keng-Soon Soo 가 Interactive

ELLIS program



CALL (ELLIS) 31% (11 16), 80% TOEFL
ELLIS program TOEFL
Interactive Multimedia program TOEFL

ELLIS, Inc.

'Applied

Research in ELLIS'

Chicago Area Public Schools

2003-2004

175

6-10

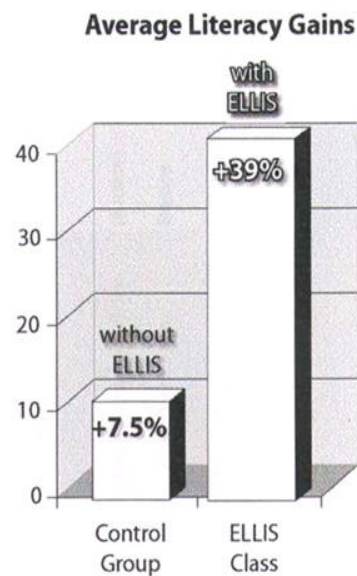
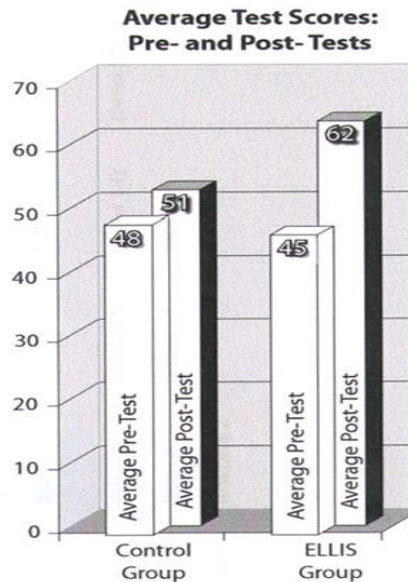
ELLIS Experimental Group

Non-ELLIS Control Group

4

4
(Average Literacy Gain)

ELLIS program
Non-ELLIS Group 5.2



(Effectiveness of Computer-Assisted Instruction & Research)

'Applied Research in ELLIS'

가
7 가 가 :
:

(Kulik, Bangert & Williams, 1983).

가: 2

20

가 .

feedback

(Van Dusen and Worther, 1995).

가: California

Center for Research, Evaluation & Training

Apple 3

(Guthrie & Richardson, 1995).

(步調)

(Underwood & Brown, 1999).

Office of Technology Assessment

1) "

"(US Congress, Office of Technology Assessment, 1995, 65). 2)

(interactive capacity)

. 3)

(Cotton, 1992)

: 1)

2)

3)

4)

5)

6)

(Cotton, 1992). 1990-1994

176

가

(Sivin-Kachala & Bialo, 1994).

: (映像 video)

가

(Balatova, 1994).

computer feedback

가

(Bationo, 1992; Van der Linden, 1993).

(Liu and Reed, 1995) listening comprehension

(Brett, 1997)

multimedia

가

(視聽)

가

(Brett,

1998). Mann(1995)

Huan & Eskey(2000)

(音)

(learning style)

(Grace,1998).

(音韻認識)

(MacArthur et al., 1995, 1991a, 1991b).

:

500

(Kulik, 1994, as cited in Grégoire, Bracewell, and

Laferrière, 1996).

(即讀單語認識 sight word recognition)

가

가

(Kulick & Kulick, 1991).

(相互作用性)

(非線形形式):

Barron Goldman (1994)

interactive

multimedia 가

(線形的)

(連繫)

/

:

가 (The US Office of Technology Assessment)

Assessment, 1995).

(US Congress, Office of Technology

Multimedia & Videodisc Monitor

Rockley L. Miller

(實益)

10 가

:

1. (Reduced Learning Time):

:

가 가

가

2. (Reduced cost)

3.

(Instructional consistency)

4. (Privacy)

5.

(精通) (Mastery of learning)

6. (Increased retention)

7.

(Increased safety)

8. (Increased motivation)

9.

가(Increased access)

10. (Learners enjoy interactive learning)

Interactive Multimedia

가

가 , 1

500

가

가

가

Interactive Multimedia

가

1

?

Multimedia

Interactive Multimedia

가

Interactive

Paper-based TOEFL

Interactive Multimedia Program

Interactive Multimedia Language Program

가

가

Interactive Multimedia Language Program

가

Computer

Program GIGO(Garbage-In, Garbage-Out)

가

PBT TOEFL CBT

CBT TOEFL

TOEFL

가

CBT TOEFL

CBT

iBT TOEFL

가

iBT TOEFL

iBT TOEFL

가

iBT TOEFL

ETS Website

Sample Questions

iBT TOEFL

가

TOEFL

Listening, Speaking, Reading, Writing Skills

가,

가,

가

(言語技能)

Interactive Multimedia Program

가

가

가

가

가

Interactive Multimedia Program

가

software 가

가

ELLIS

가

Interactive Multimedia

Programs

가

software 가

(左腦) (右腦)

가 . Interactive Multimedia
, Whole Language, Total Physical Response(TPR), Leslie Hart Proster Theory, Suggestopedia,
Desuggestopedia, Krashen Affective Filter Hypothesis Pleasure Hypothesis concept
. Troy

Heinrich Schliemann

가 G. Lozanov 가 Suggestopedia
Baroque J. H. Schultz Autogenic Training

proster

(品川嘉也)

가 가 (手足)
(耳目口鼻)가 (腦) 가 1
(腦梁)

가 가
가 가

(協業)
(右半身) (右半球) (音樂腦) (情緒腦)
(左半身) (制御) (空間的), (類型的),
(圖形的), (繪畫的), (音樂的), (運動神經), (反射神經),
(直觀力), (想像力), (感情)
(右腦) pattern top-down
pattern

가 pattern (五官) 가 (記銘) (再生)
가

Krashen Leslie Hart 가

9 Ronald
E. Feare , , , , Computer Programming

()

가 TOEFL

Foreword 6

99

TOEFL

2005 11 30