

Does it help to be explicit about morphology?

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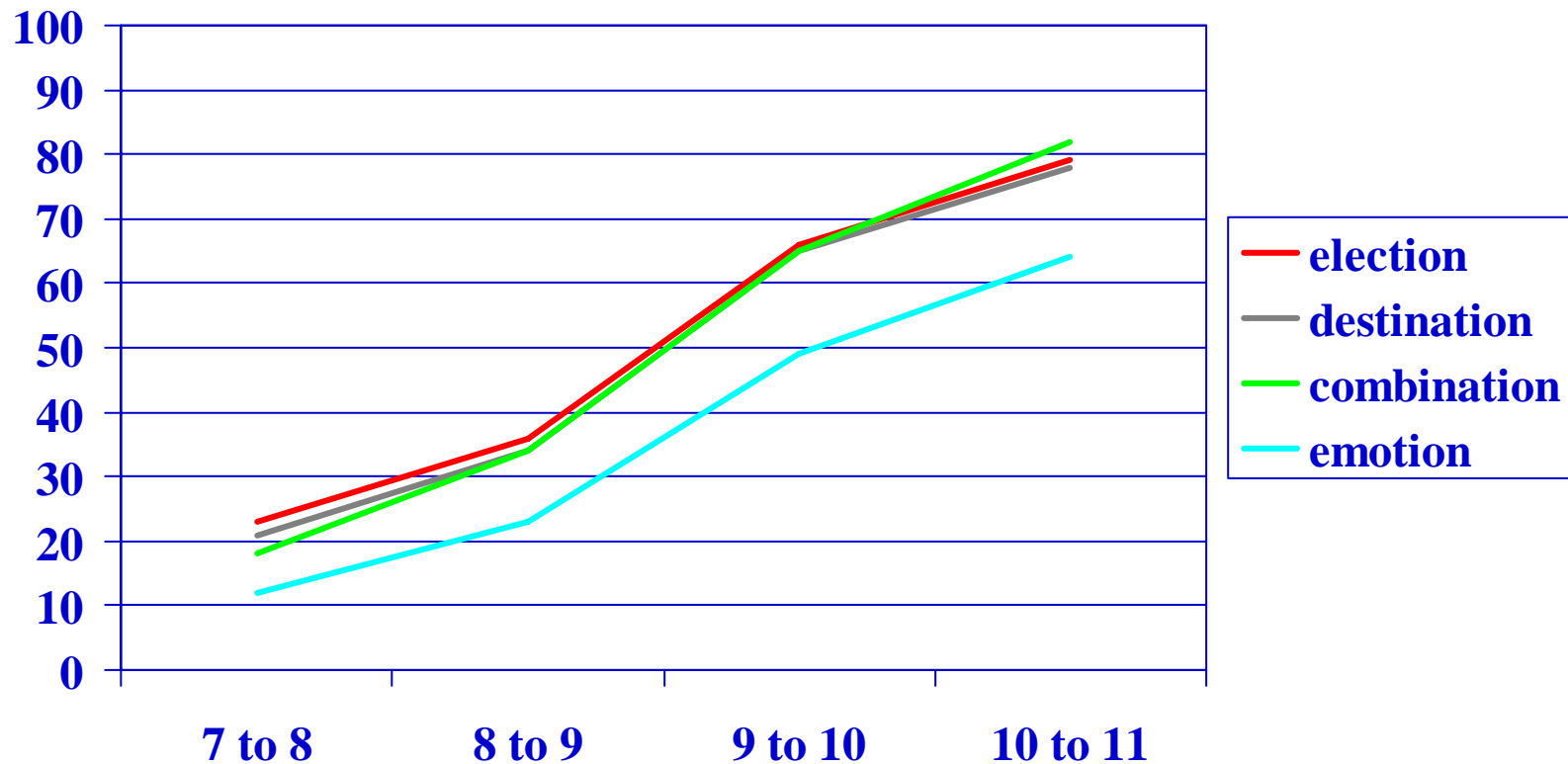
with

Jane Hurry, Deborah Evans, Danny Bell,
Jenny Olsson, Joe Burbank, Julia Carraher

The question

- In many orthographies (Greek, French, Portuguese, English) morphemic suffixes are hard for children to spell (e.g. –ed, -ion)
- Some of these difficulties might be due to a lack of explicit knowledge on the part of the children that these segments of words are morphemes
- This raises the question whether **explicit instruction about morphemes will remove some of the spelling difficulties that these segments cause.**

The -ion ending: how 880 children spelled
four words with the “-t-ion” ending:
percent correct



technician

Canadian

Russian

politician

vegetarian

separation

evaluation

reservation

relegation

imagination

-ian endings are for people: -ion endings are not

Four kinds of intervention

□ We included four groups:

① **Explicit** (*morpheme*) N=40 C.A. 9y6m

② **Implicit** (*morpheme*) N=42 C.A. 9y7m

③ **Mixed** (*morpheme*) (implicit followed by explicit) N=42 C.A. 9y7m

④ **Control** (*comprehension*) N=76 C.A. 9y5m

□ Our main aim was to teach children the rule about the –ian/-ion ending

Group pre-test

Two intervention sessions: pairs

Immediate post-test

Two month interval

Delayed post-test

Pre- and post-test spelling task with both
endings (real words)

Kate was the only one without an _____.

The _____ grew her own vegetables.

The _____ checked out my book.

The _____ went on and on.

The _____ scored again

_____ to the winner

The _____ performed a magic show

Pre- and post-test spelling task with both
endings (real words)

Kate was the only one without an invitation

The vegetarian grew her own vegetables

The librarian checked out my book

The discussion went on and on

The Brazilian scored again

Congratulations to the winner

The magician performed a magic show

Pre- and post-test spelling task with both endings
(pseudo-words)

Someone who works in a korpect is a _____.

The place where you find foppats is a _____.

When people denass, they make a _____.

*A person who comes from Barrim is called a
_____.*

Pre- and post-test spelling task with both endings
(pseudo-words)

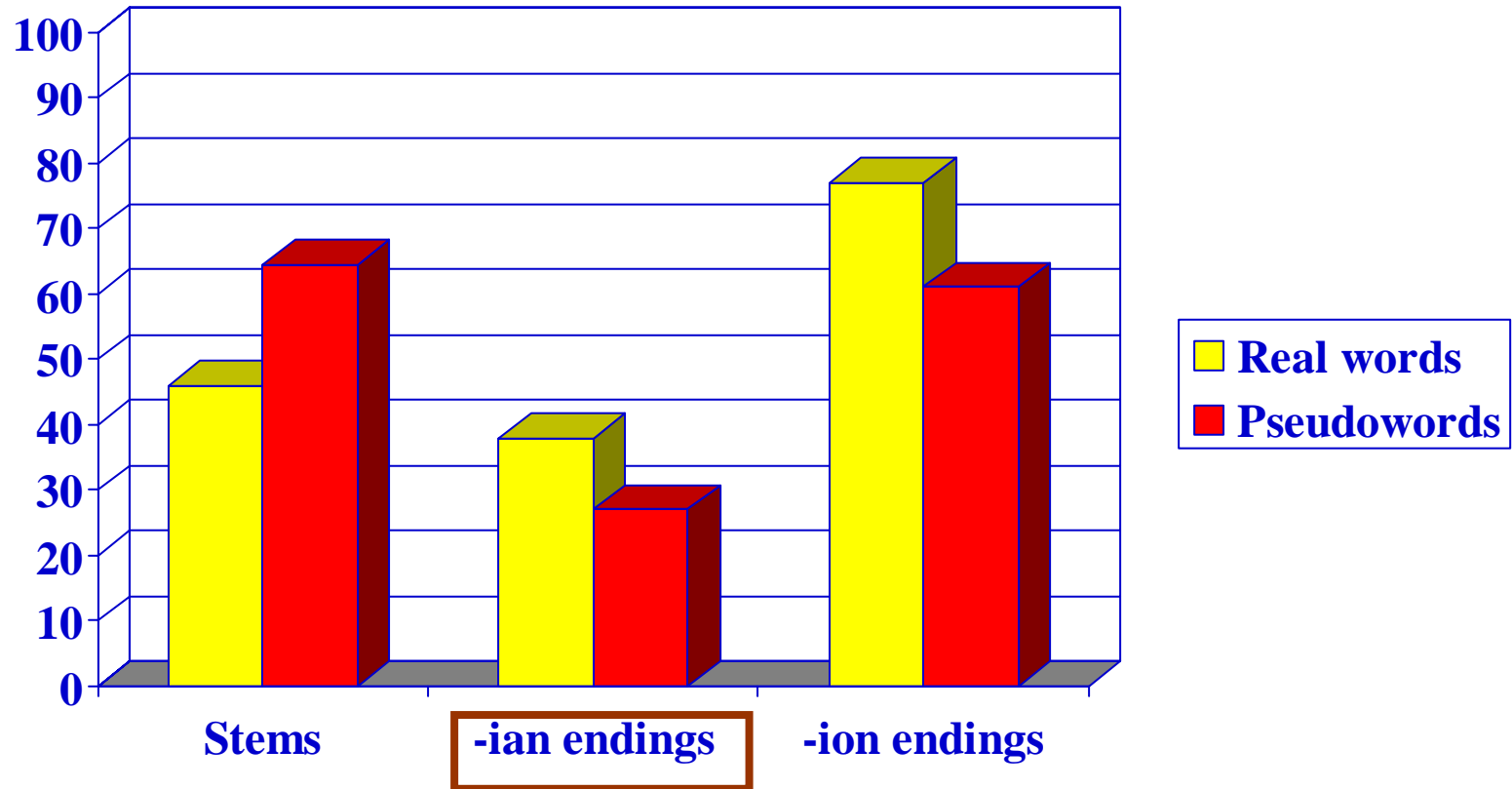
Someone who works in a korpect is a korpectian.

The place where you find foppats is a foppation.

When people denass, they make a denassion

A person who comes from Barrim is called a Barrimian.

Percent correct in the pre-test: mean age = 9y6m
N=200



-ian endings are significantly more difficult than -ion endings

It is significantly harder to get the right ending for pseudo-words than for real words

Intervention techniques

Two sessions and two techniques

① *Analogies* – the pairs of children were given analogy tasks involving transformations of one-morpheme into two-morpheme (derived) words



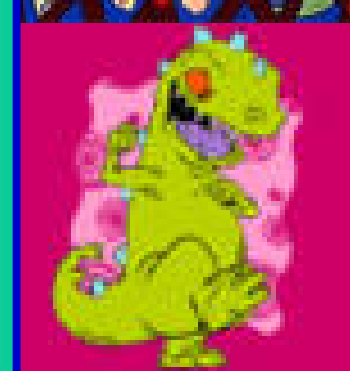
② *Correction* – the pairs of children were shown some words and had to decide between them whether the words were spelled correctly: and then were given feedback



- ① Explicit morphemes
- ② Implicit morphemes
- ③ Mixed morphemes (implicit followed by explicit)

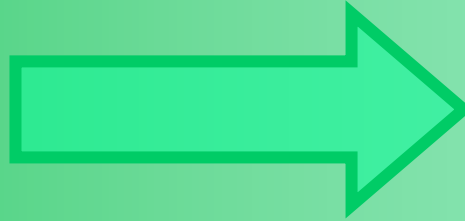


Word Game 1





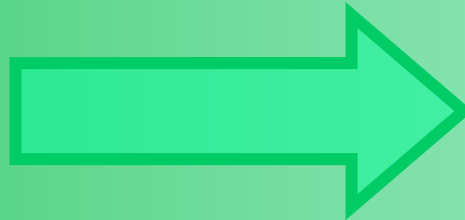
magic



magician



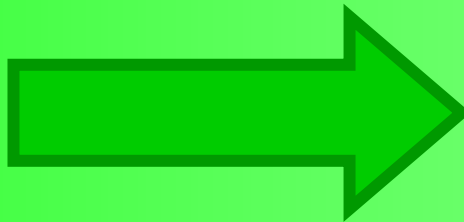
music



musician



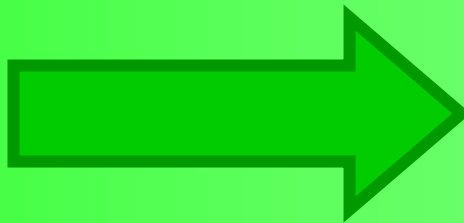
protect



protection



infect

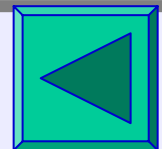


infection



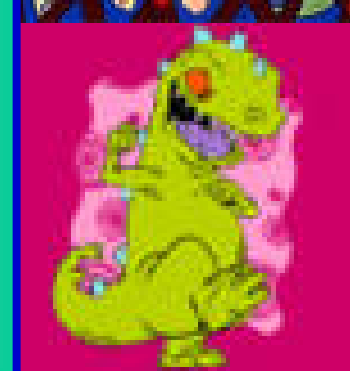
magic	magician
music	musician
history	historian
library	librarian
India	Indian
Egypt	Egyptian
political	politician
technical	technician
Italy	Italian
Hungary	Hungarian

protect	protection
infect	infection
add	addition
subtract	subtraction
confess	confession
discuss	discussion
suggest	suggestion
collect	collection
educate	education
imitate	imitation





Can you mark
Joe's work?



The gang made a **Confession** to the police.

confession

The musician was wonderful.

musician

Joe was a Christian.

Christian

There was no limit to Jane's imagination.

imagination



WELL DONE!!!

YOU HAVE FINISHED THE GAME.



barbarian

Christian

comedian

magician

mathematician

musician

confession

conversation

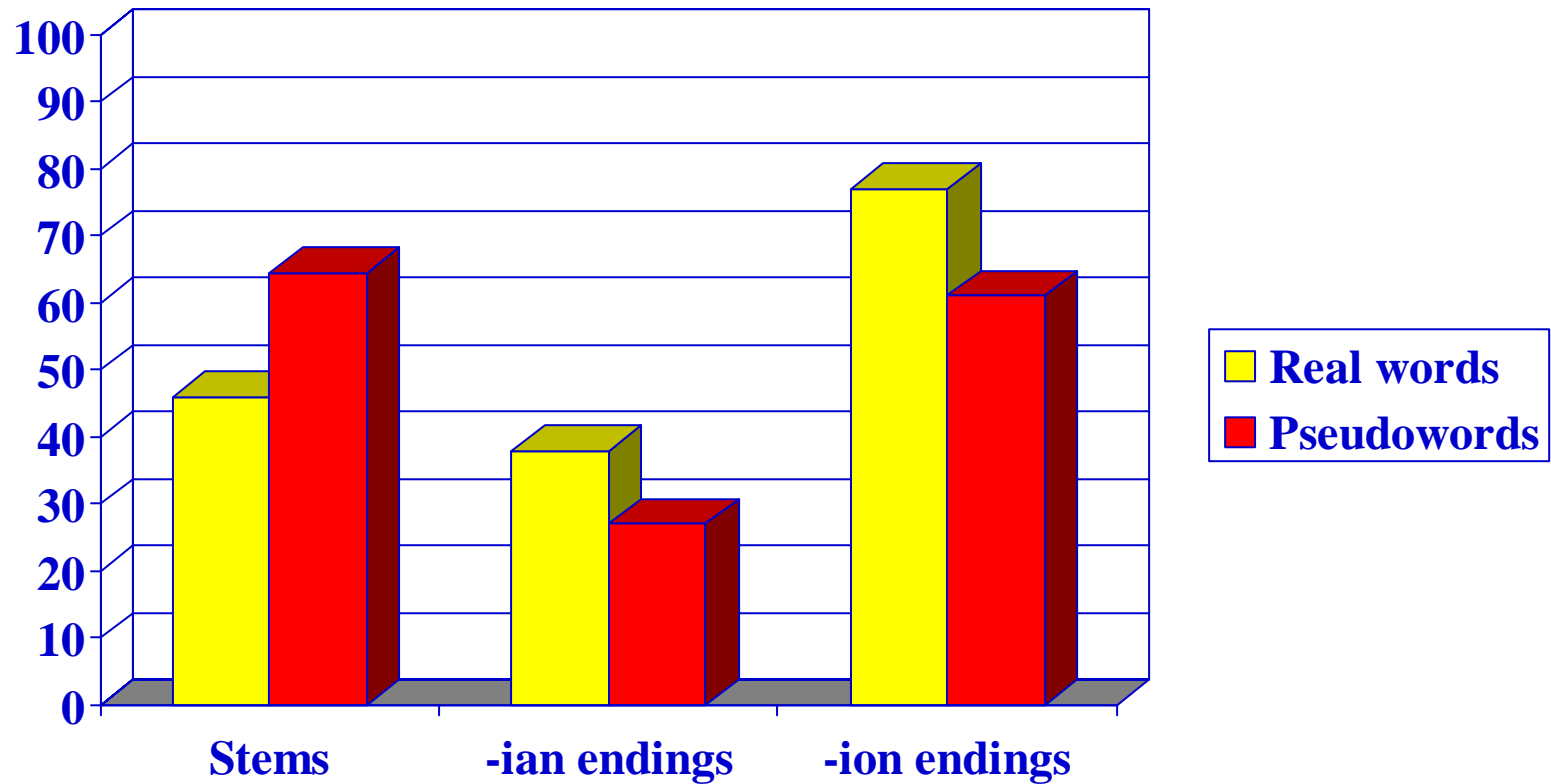
combination

discussion

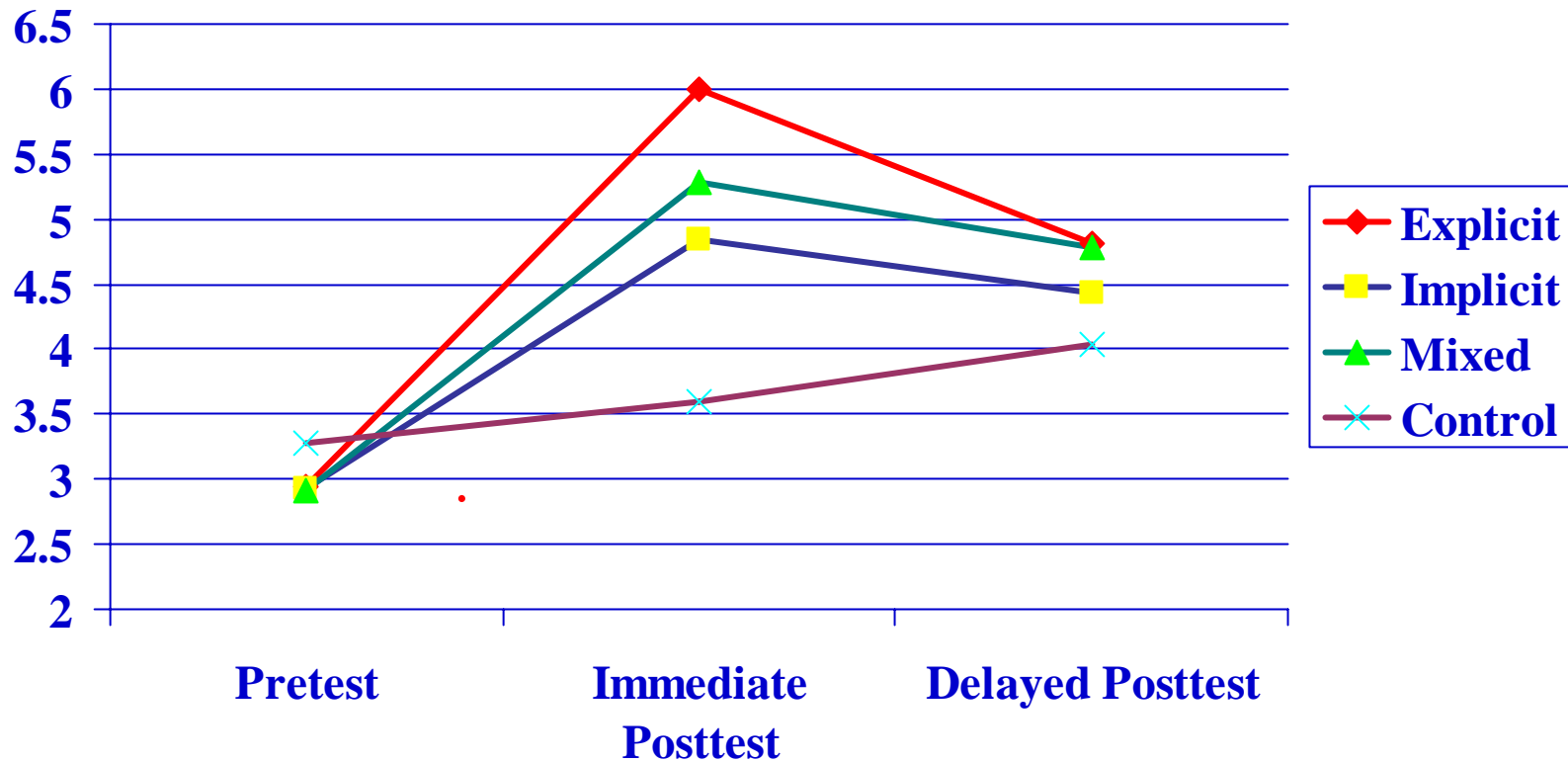
imagination

invitation

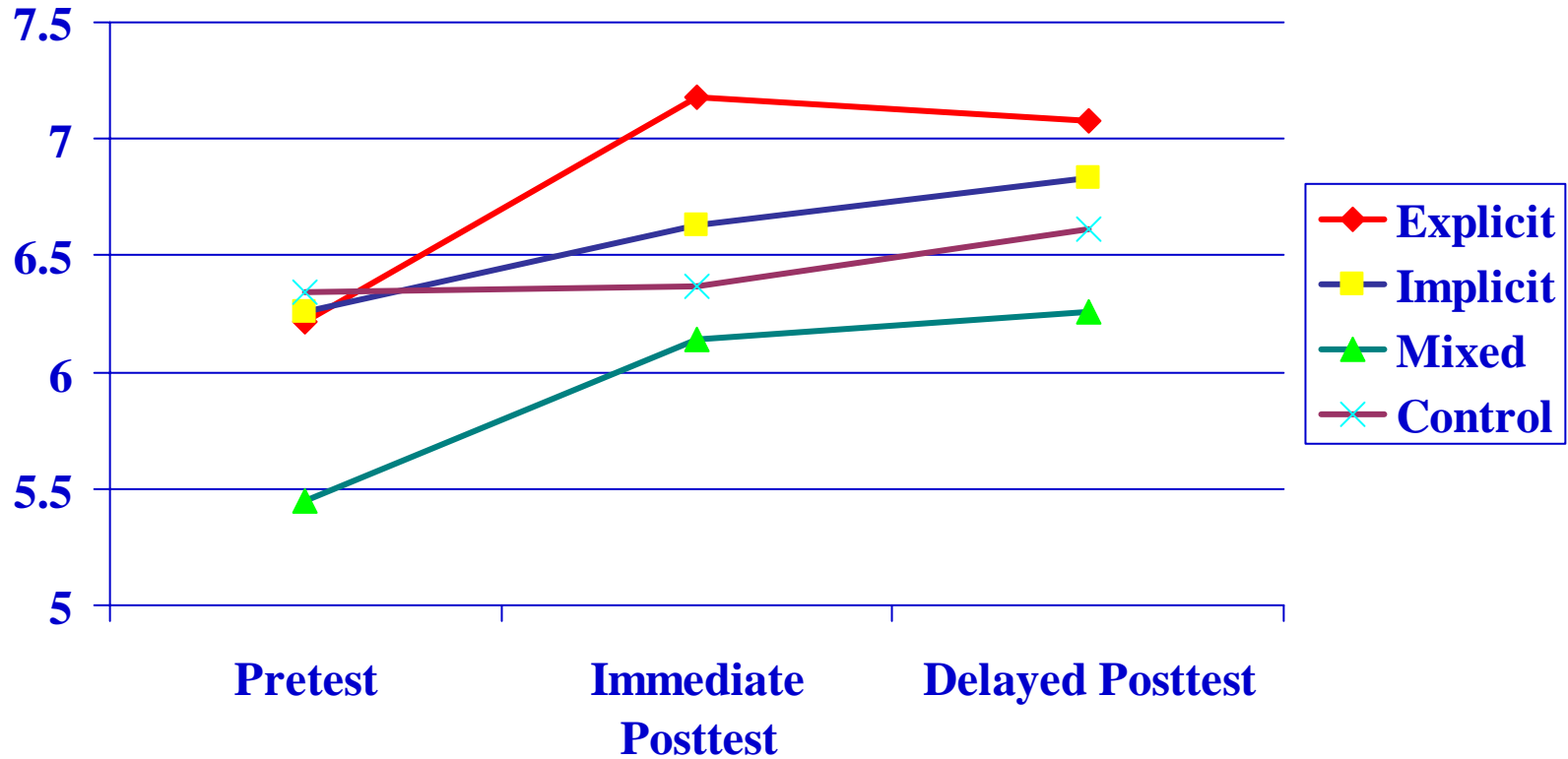
Percent correct in the pre-test: mean age = 9y6m
N=200



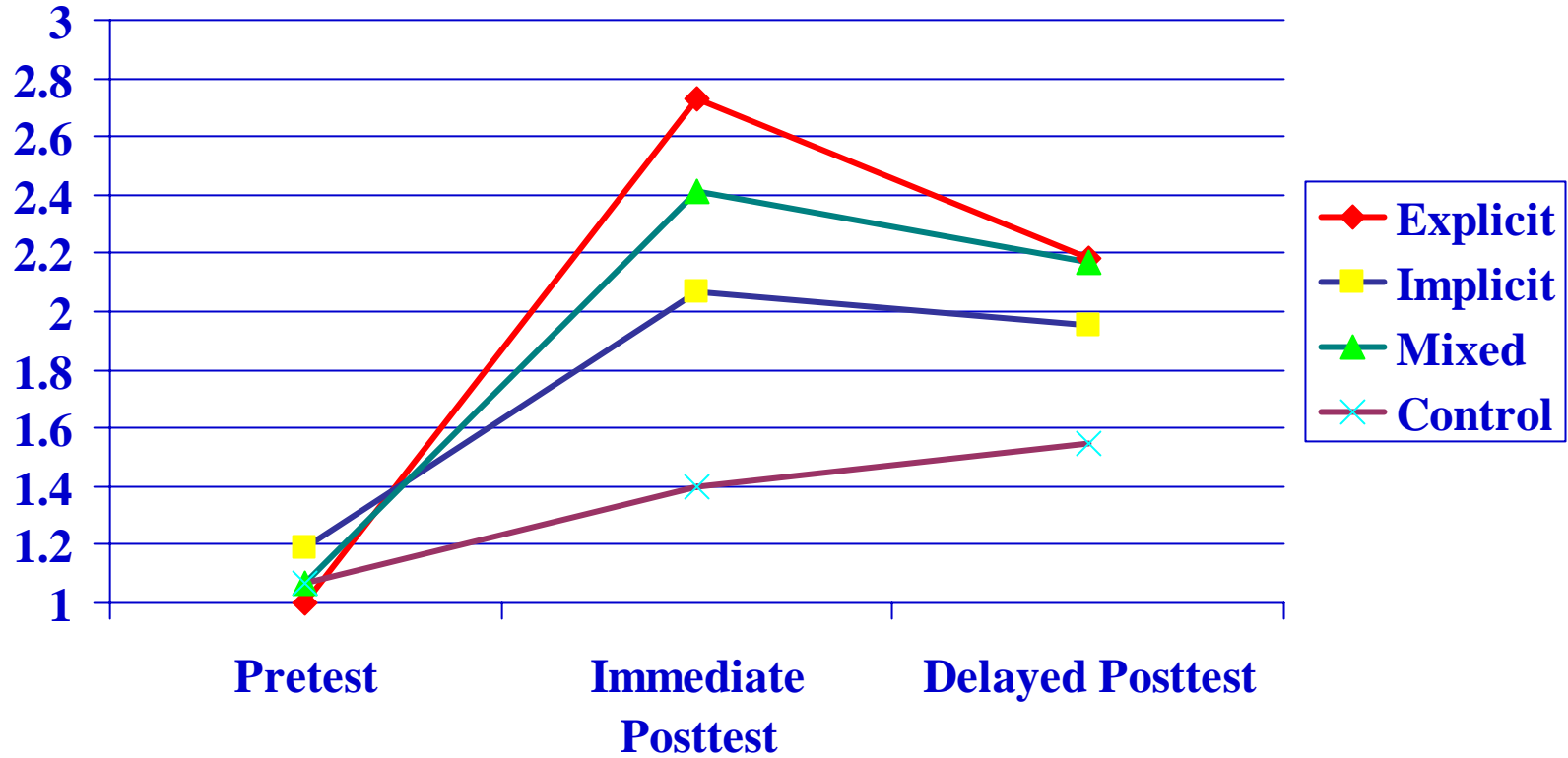
Mean correct endings (out of 8) with real words ending in -ian



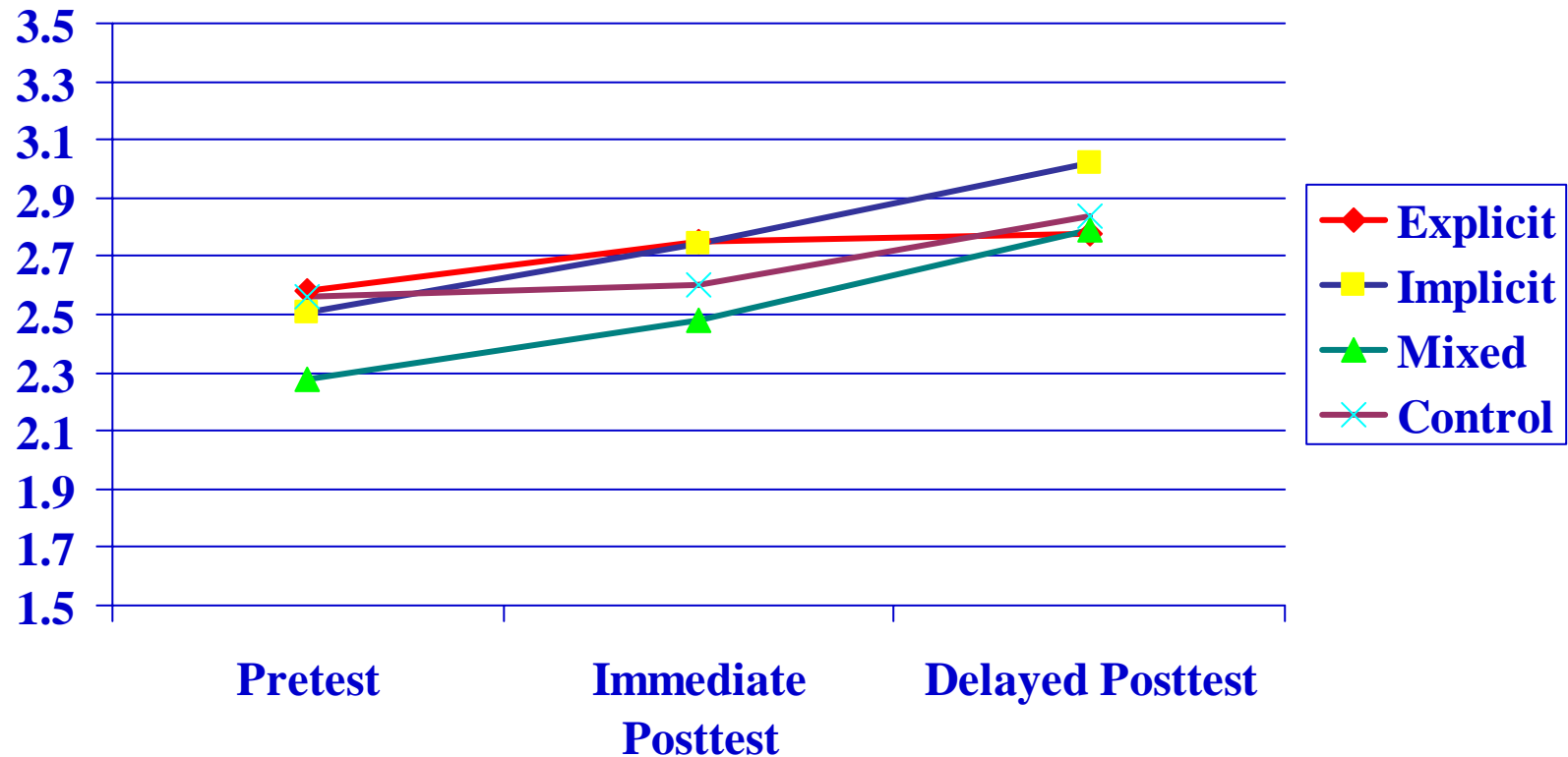
Mean correct endings (out of 8) with real words ending in -ion



Mean correct endings (out of 4) with pseudo-words ending in -ian



Mean correct endings (out of 4) with pseudo-words ending in -ion



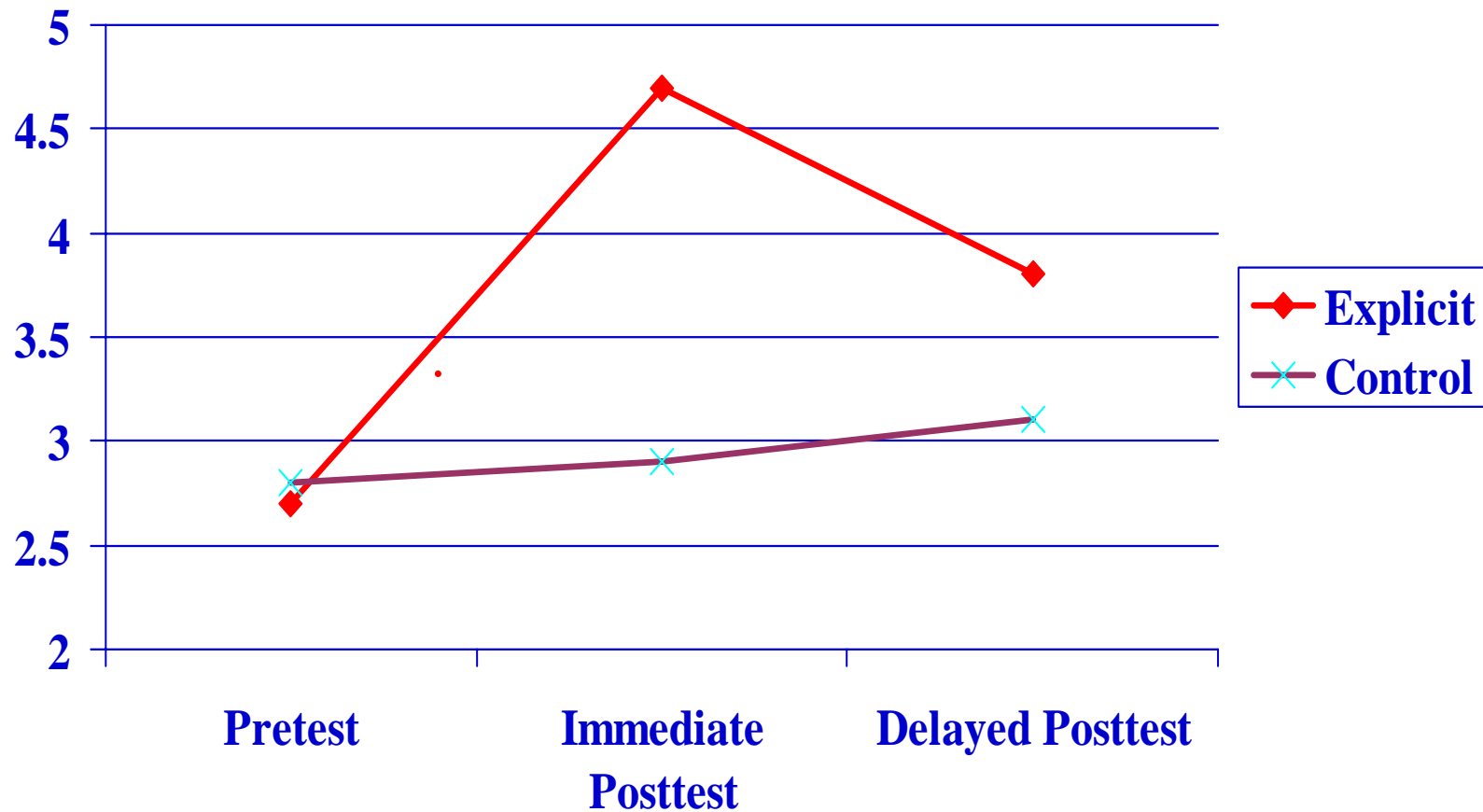
Summary

- ❑ **In the immediate post-test** there were:
 - ① strong intervention effects particularly with Explicit group and to some extent the Mixed group on learning both endings in real words
 - ② strong intervention effects particularly with Explicit group and to some extent the Mixed group on learning the *-ian* ending in pseudo-words
 - ② No intervention effects with the *-ion* endings with pseudo-words
- ❑ **In the delayed post-test** the Explicit and Mixed groups did better than the other groups, but not always significantly

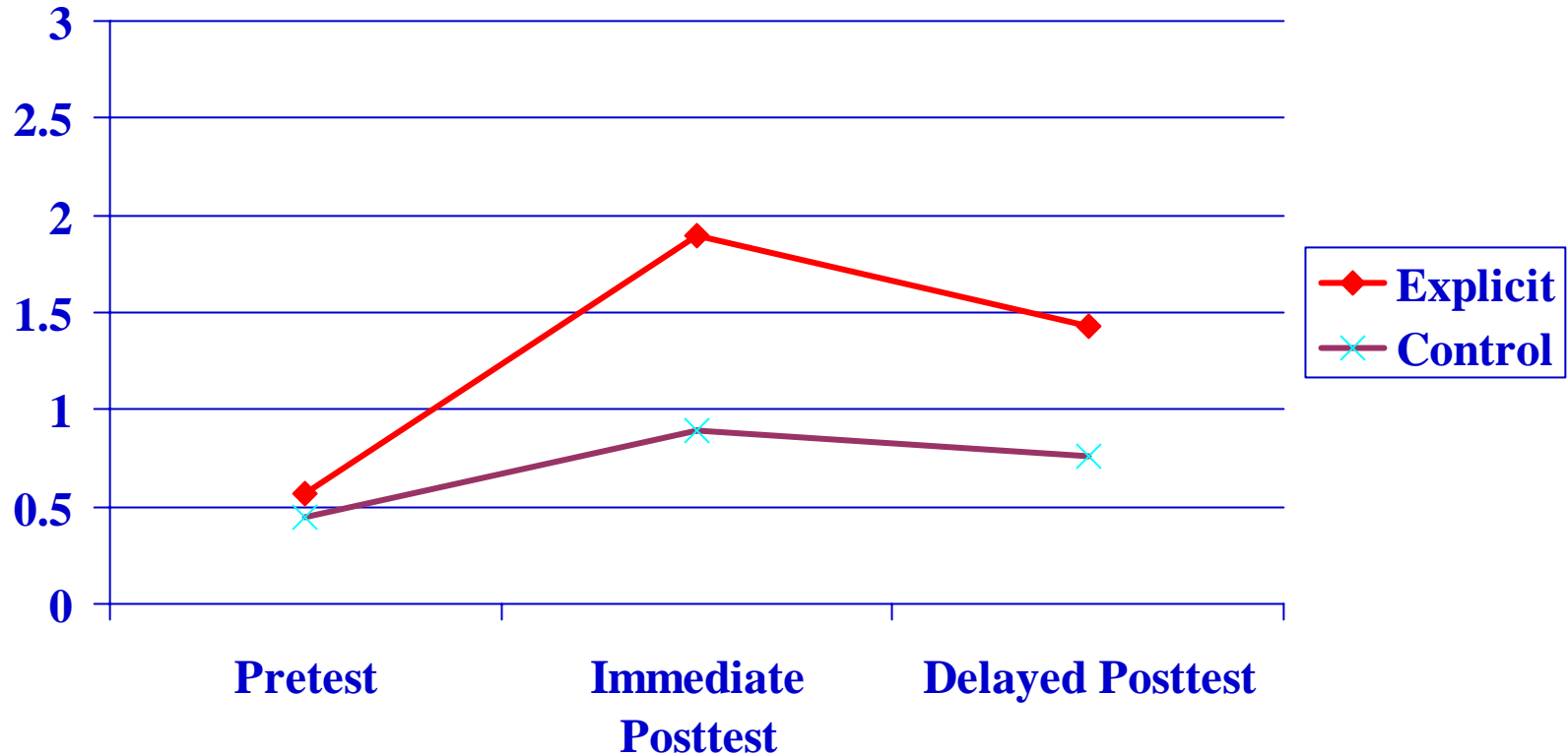
Classroom study

- We wanted to find out whether our teaching methods would work in the classroom as well as in the laboratory
- So we arranged a classroom replication that was exact except that:
 - ① the teachers (not us) delivered the material to the whole classroom on a screen (the children still worked in pairs)
 - ② there were only two groups: Explicit and Control

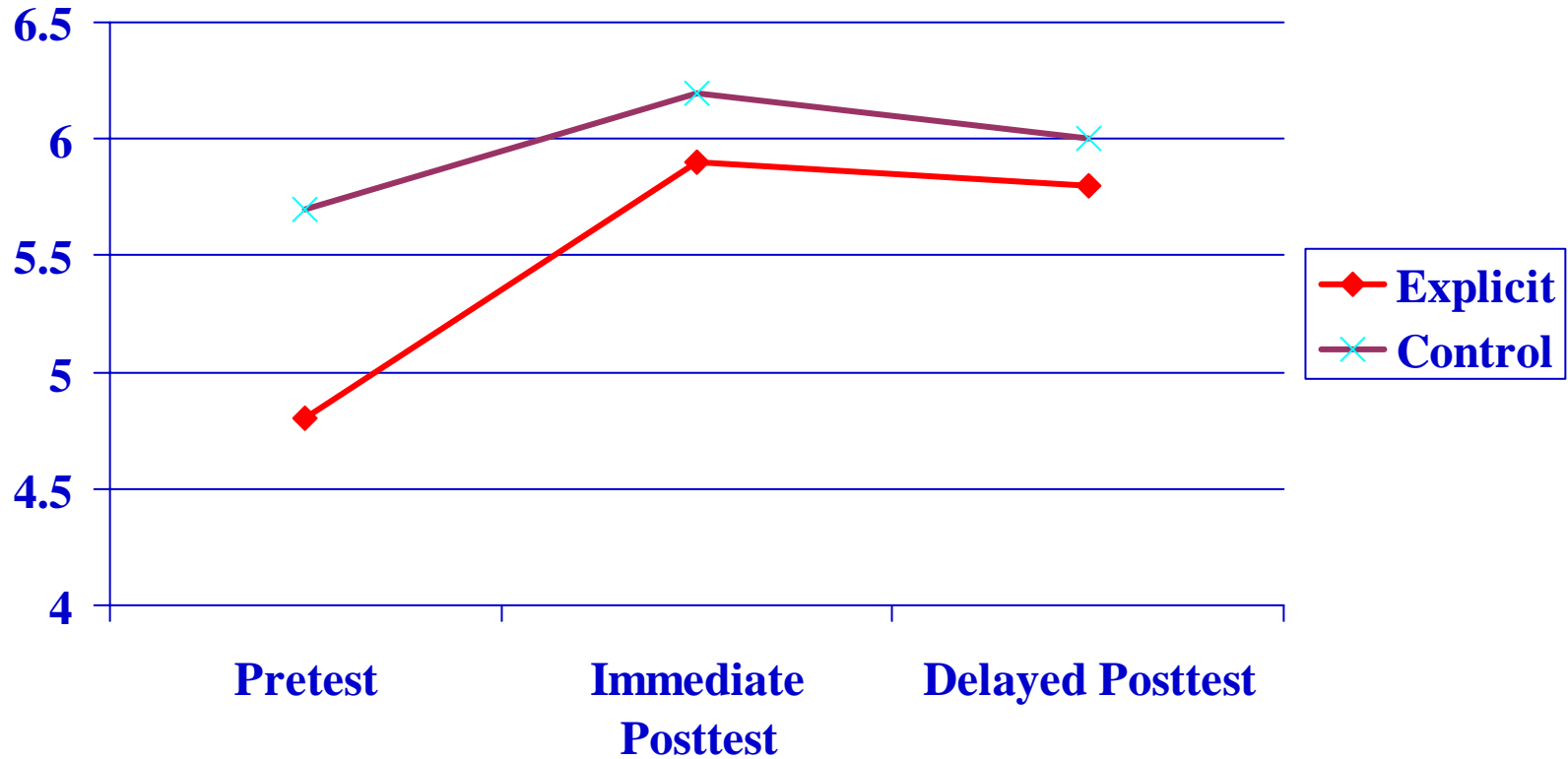
Mean correct endings (out of 8) with real words ending in -ian: Classroom Study



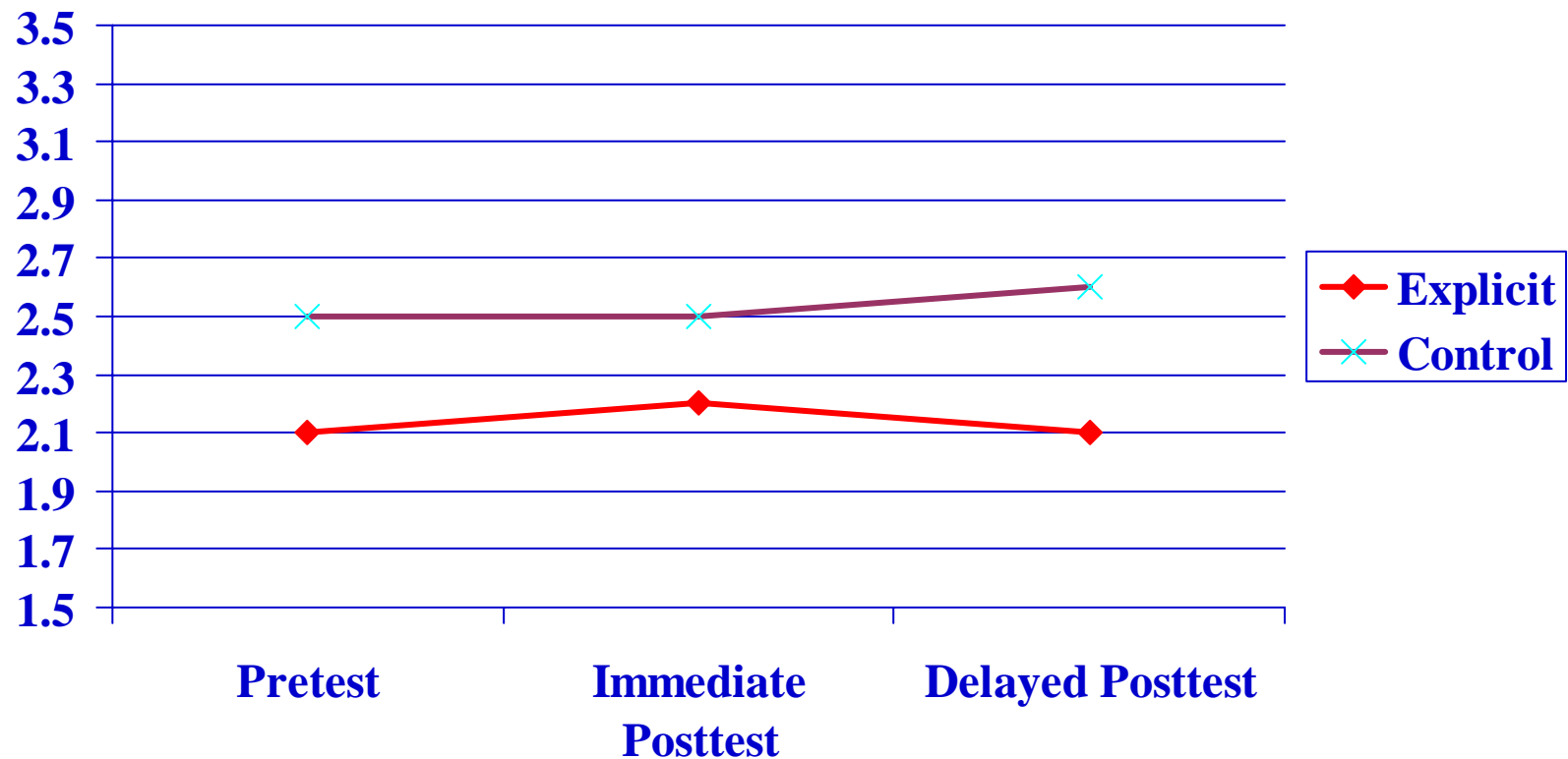
Mean correct endings (out of 4) with pseudo-words ending in -ian : Classroom Study



Mean correct endings (out of 8) with real words ending in -ion : Classroom Study



Mean correct endings (out of 4) with pseudo-words ending in -ion : Classroom Study



Conclusions

- The relative success of the Explicit group suggests that they can quite easily be helped to learn simple, but usually untaught, rules about types of derivational morphemes and their spelling
- This teaching also works in the classroom
- The greater difficulty of learning about the rule for the *-ion* words may be due to the fact that words with this ending are mostly rather abstract words and hard to categorise
- The methods that we have been using with success may be appropriate too for encouraging vocabulary development