



上海交通大学  
SHANGHAI JIAO TONG UNIVERSITY



# Effectiveness of Facilitating ESL Learning with Personal Response System

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# Introduction



- Research Background
  - Literature Review: infancy  
(*Shapiro, 2009; Educue, 2003; Birdsall, 2002*)
  - Learning problem: efficiency
  - Institutional support: CTLD of SJTU



## Theoretical Framework

### ➤ Peer Instruction (PI)

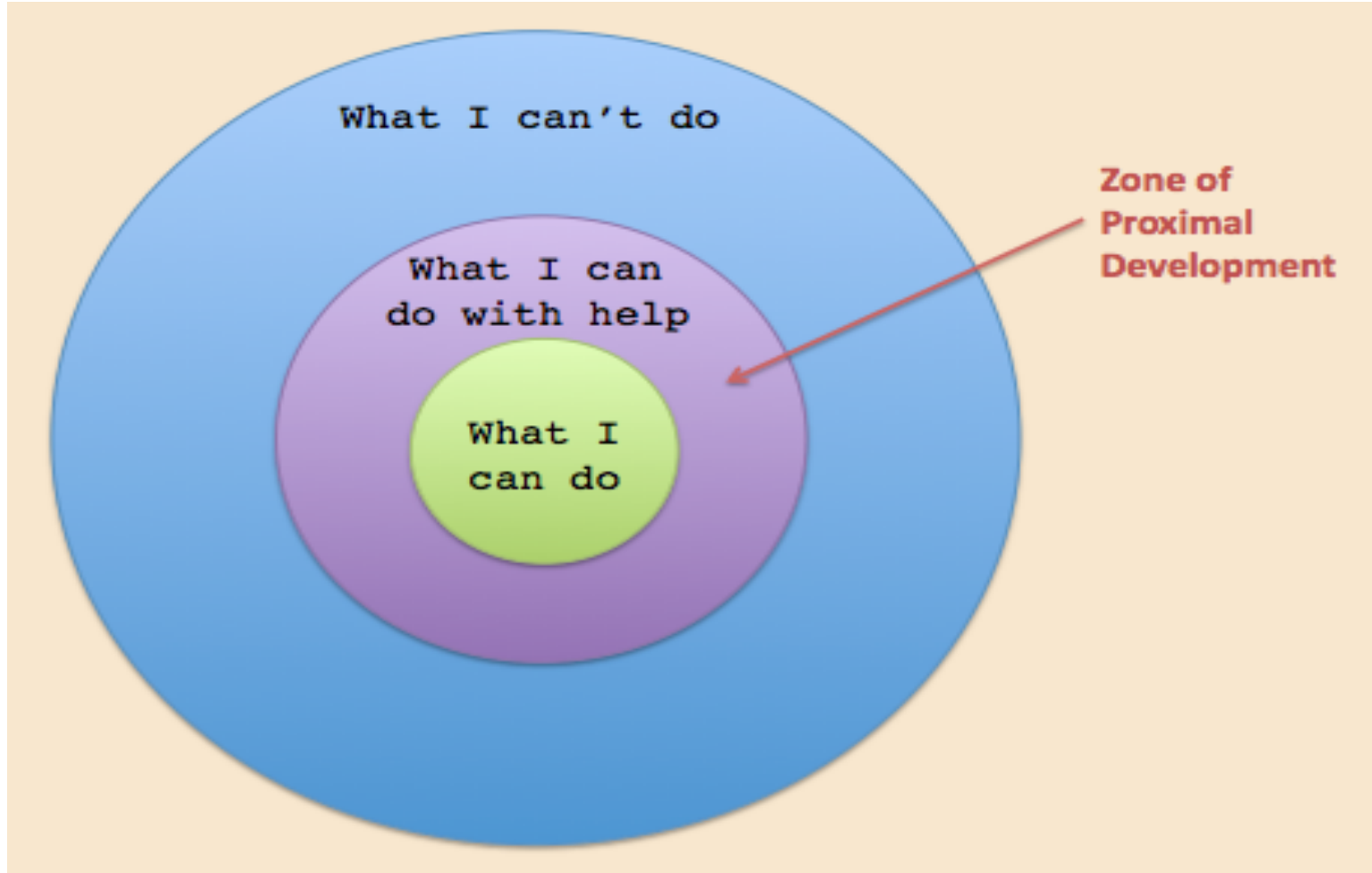
Eric Mazur. *Peer Instruction: A User's Manual*[M].  
NJ: Prentice Hall, 1997.

### ➤ The Zone of Proximal Development (ZPD) Vygotsky, 1978



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# Introduction





# Implementation



## Participants

35 First year postgraduate students



## Period

one term



## Tools Employed

- Questionnaire
- Interview
- Writing Test
- Students writing of journal



# Implementation

## Teaching Activity Design

- At Term Beginning

*==》 purpose: placement and warm-up*

- In the midst of Term

*==》 purpose: intensifying and promoting*

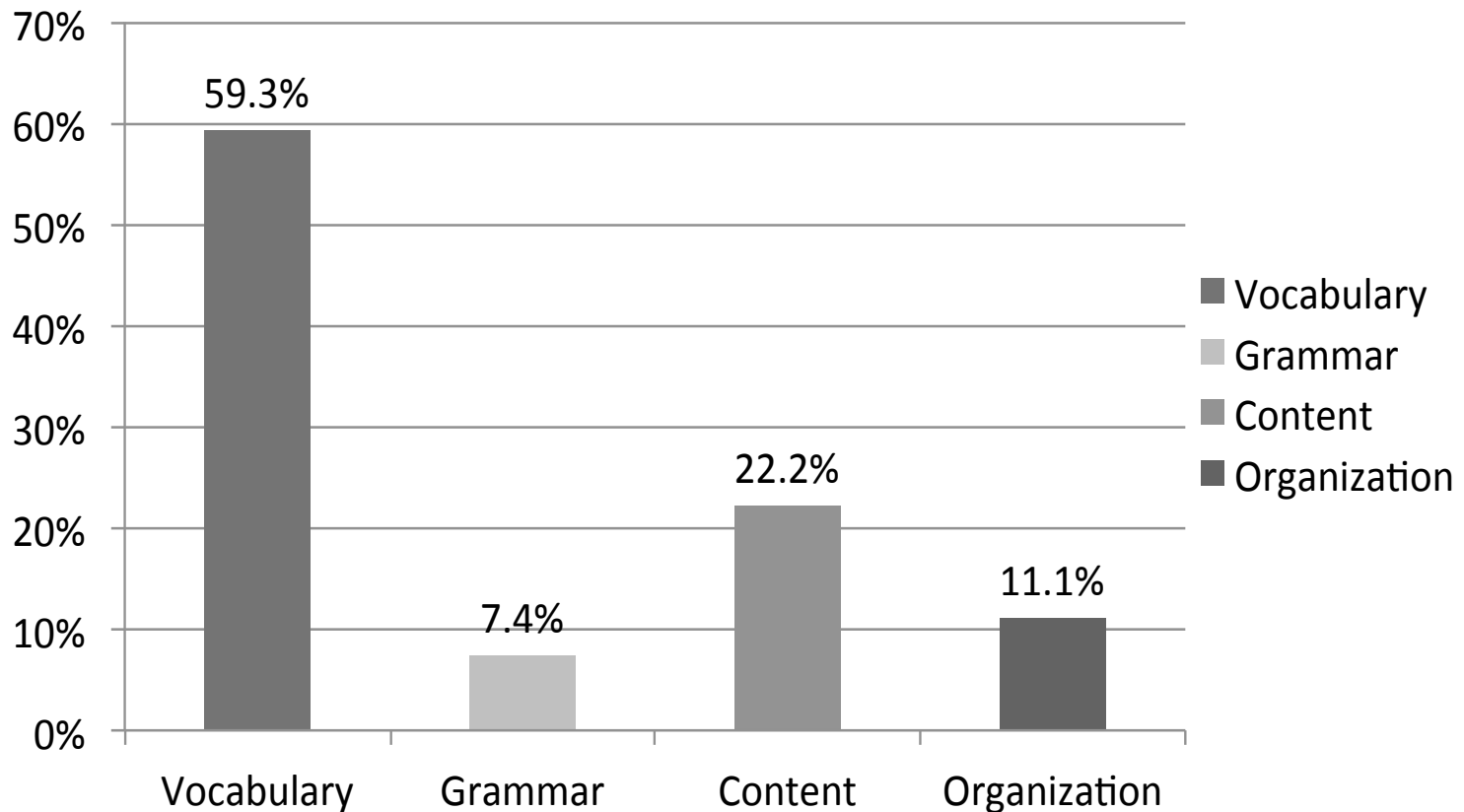
- At Term End

*==》 purpose: summary and reflection*



# Learning Background Survey (1)

Graph 1 Weakness in English Writing  
(Term Beginning )

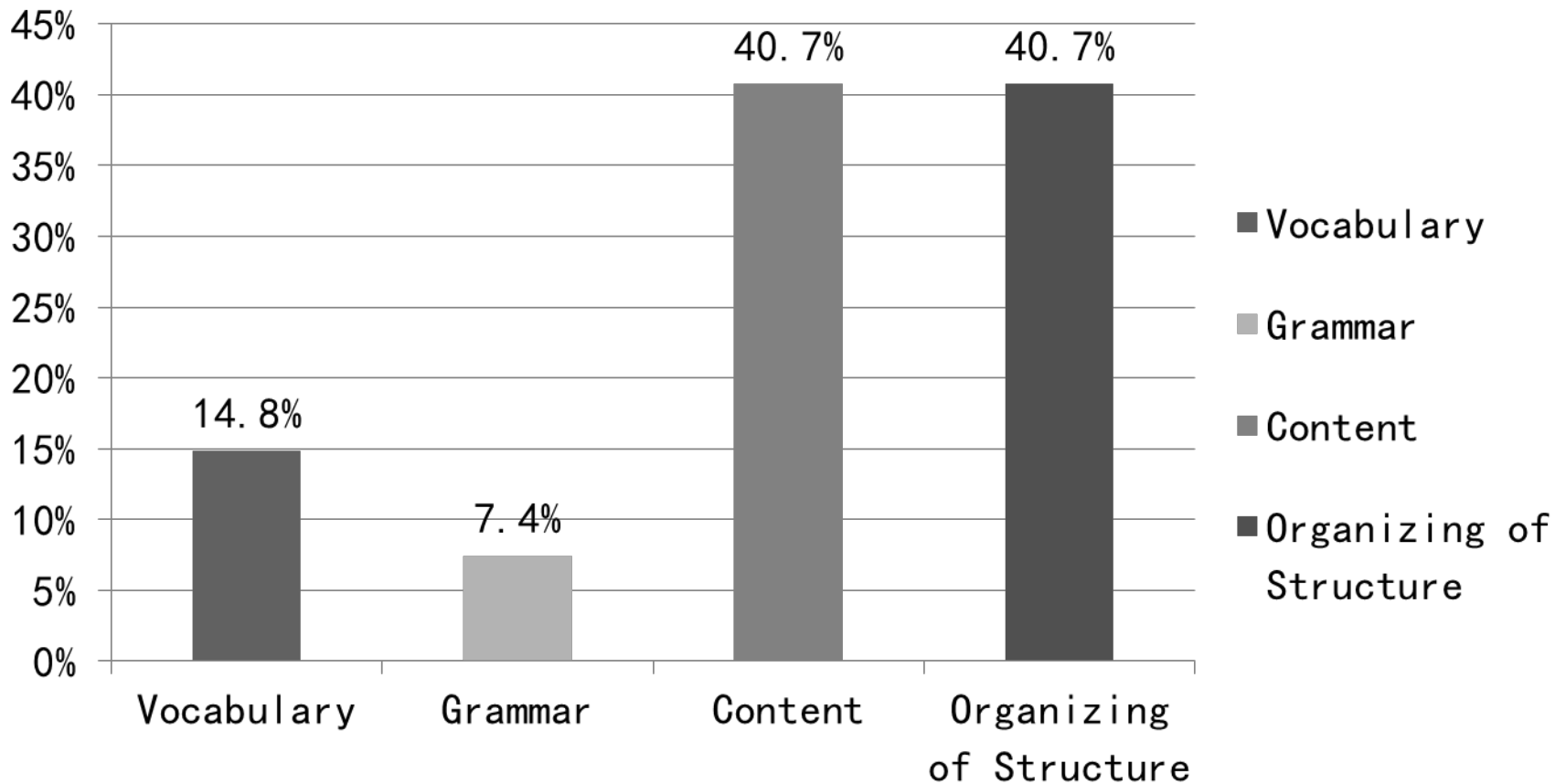






# Learning Background Survey (2)

Chart 2 Important Elements in English Writing  
(Term Beginning)





# Implementation

## Highlights of Knowledge and Skills

- Essay structure
- Sentence structure
- Logic thinking
- Wording
- Rhetoric
- Punctuation
- Proof-reading

...



# Writing Good Sentences



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# Implementation Learning Procedures

## Step 1

Students viewing of teaching slides (before class)

## Step 2

Students 1<sup>st</sup> voting for questions designed

## Step 3

Students discussing and debating with peers

## Step 4

Students 2nd voting for the same questions

## Step 5

Teacher's explanation and extra materials provided



# Implementation

## A case study

### ⌚ Learning about punctuation

*Question: Which of the following sentences is wrong grammatically?*

- A) It is fine, we go outing.
- B) It is fine, so we go outing.
- C) It being fine, we go outing.
- D) It is fine; we go outing.
- E) Since it's fine, we go outing.



# Implementation

Key: A



# Results and Discussion

## ⦿ Raised Performance

5 writing tests: An increase in test scores

## ⦿ Student Evaluation of PRS

Likert scale rating

Interviews both individual and collective

Students journal writing



# Table 1 Writing Test Results

(Full score: 20)

Student No.	Test 1	Test 2	Test 3	Test 4	Test 5 (GROUP)	Note
1 CAI	12	15	14	14	16	G1
2 FU	17	18	18	18	17	G2 C
3 WANG	7	7	8	10	16	G1
4 FAN	9	8	9	15	16	G5
5 HE	15	17	17	19	18	G3 C
6 LI	14	14	15	16	18	G3
7 YOU	13	14	15	15	18	G3
8 ZHANG	14	15	15	17	17	G4 C
9 WU	13	16	15	18	16	G1
10 CHEN	13	15	14	17	17	G4
11 JIANG	11	11	13	16	17	G1
...						





## Table 2 Results of Student Evaluation

	Questions	Mean
1	I participate more in class because PRS is used.	4. 12
2	I try my best to get the right answer to PRS questions.	4. 34
3	I gets me more involved in communication with others in the PRS course.	4. 25
4	PRS helps me to learn better course materials.	3. 37
5	Given the chance to select, I prefer a PRS course to a non-PRS course.	3. 90
6	PRS helps me in identifying my problems in learning.	3. 87
7	I have difficulty in understanding the PRS questions.	1. 76
8	It takes me time to get used to PRS courses.	1. 54
	Likert scale : 1= strongly disagree; 2= disagree; 3= neutral; 4= agree; 5=strongly agree	



# Conclusion



## Effectiveness

- ◆ Encouraging contact between S & T
- ◆ Developing productive interaction and cooperation among students
- ◆ Promoting Active Learning
- ◆ Raising learning interest
- ◆ Easily knowing who knows what

...



# Conclusion

- For future study
  - Key: question designing
  - Flexibility in use: conceptests
  - Frequency of use: at intervals



*Thank you!*

