The Impact of Collaborative learning through ICT - Action Research on classroom activities in English Reading Comprehension Lessons

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Introduction

• Background Information
  – *Importance of English*
  – *13 English-medium schools (DSEJ, 2012)*
  – *Students are from Chinese kindergartens*
  – *English is their second language*
  – *Reading literacy plays an important role in their learning*

• Action Research
  – *Measures the students’ performance on their reading literacy through the use of ICT and collaborative learning*
  – *Results help to know the strengths and weaknesses of the students so that remedial can be made*
• **Target Groups**

  – *one Primary 2 class and one Primary 5 class are chosen*
  
  – *English is their second language*
  
  – *Primary 2 students*
    
    • do not have enough vocabulary, grammar and syntactic skills to interpret the written passage
    
    • have short attention span
  
  – *Primary 5 students*
    
    • have better vocabulary and grammar knowledge
    
    • have difficulties in analyzing text and show low interests in reading comprehension
Methodology

• A class of Primary 2 and a class of Primary 5 were chosen for the studies
• Assessments were made throughout the first semester
Action-reflection cycle

• **Procedures**
  – preliminary assessment done individually using paper
  – assessment done in groups of four using ICT
  – assessment done in pairs using ICT
  – assessment done individually using paper
  – assessment done individually using ICT
To be eligible, the research met the following criteria:

1. Conducted with students at a junior primary and a senior primary level.
2. Done in a classroom setting.
3. Compared the collaborative learning with the traditional one.
4. Did not include students with learning disabilities.
5. Same amount and similar question types were set.
Findings

- Primary 5
### Correlation between Rank and Score (Before)

- **Sample Size**: 34
- **Y - intercept**: 0.857
- **P Value**: 0.000465
- **Gradient**: -0.0105
- **Equation**: $Y=-0.0105X+0.857$
### Correlation between Rank and Score (After)

![Graph showing the correlation between rank and score](image)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>34</td>
</tr>
<tr>
<td>Y - intercept</td>
<td>0.797</td>
</tr>
<tr>
<td>P Value</td>
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<tr>
<td>Gradient</td>
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<tr>
<td>Equation</td>
<td>$Y = -0.00438X + 0.797$</td>
</tr>
</tbody>
</table>
Correlation between Rank and Score (Before)

Before

Sample Size: 34

Y-intercept: 0.857

P Value: 0.000465

Gradient: -0.0105

Equation: Y = -0.0105X + 0.857

Correlation between Rank and Score (After)

After

Sample Size: 34

Y-intercept: 0.797

P Value: 0.0670

Gradient: -0.00438

Equation: Y = -0.00438X + 0.797
Primary 2
Correlation between Rank and Score (Before)

Sample Size | 34
---|---
Y - intercept | 0.739
P Value | 2.143E-07
Gradient | -0.0142
Equation | \( Y = -0.0142X + 0.739 \)
Correlation between Rank and Score (After)

**Sample Size**: 34

**Y-intercept**: 0.759

**P Value**: 0.00145

**Gradient**: -0.00859

**Equation**: $Y = -0.00859X + 0.759$
### Correlation between Rank and Score

#### Before

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<th>After</th>
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#### After
Comparison of Predicted Score Before and After Collaborative Learning through ICT

P Value: 0.000913

Score
Predicted Score

Rank
0 10 20 30 40
• Changes in teaching practices
  – More time is needed in the beginning when setting the paper. After a few practices, preparation time is shortened
  – Save a lot of time in checking the paper
  – Correct open-ended questions online

• Learners’ progress is closely monitored
  – Learners know the result immediately
  – Teachers could give comments right after the assessment
  – The result could be analysed immediately
• Slow learners are motivated
  – *Improvement is shown on slow learners.*
  – *They learned with other learners.*

• Lesson is more fun
  – *They are excited and happy.*
  – *Learners like competitions. Assessments become games in their mind.*
  – *Stress free*

• The Control of the tool
  – *Work well in multiple choice and fill in the blanks*
For answering questions, it is more convenient to use paper and pen. They may forget what they want to answer during the typing process.

- Encourage learners to share knowledge
  - The quiet learners are more willing to communicate in small groups.
  - Could help each other when there are some difficult questions
  - When there are different opinions, answers are found through different resources
• **Restructuring the classroom**
  – *Different settings could be made*
Implications

• “Collaboration does not just happen. It takes planning and coordination on the part of the instructor to carry out collaborative activity successfully...” (Raloff & Pratt, 2005, p19)
• It gives them opportunities to brainstorm ideas and consolidate data.
• Students may have new approaches in solving problems.
• They can improve their interpersonal communication skills and relationship.
• The ICT assists in their learning and build up confidence and enthusiasm.
• This further encounters a higher level of learning style, thus increases their self-esteem.
• This also allows teacher working more closely and personally with collaborative groups.
Process of Collaboration with ICT

• “Set the Stage
• Create the Environment
• Model the Process
• Guide the Process
• Evaluate the Process (Raloff & Pratt, 2005)”
References


