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EFFECTIVENESS OF CLIL-BASED INSTRUCTION ON ENGLISH LANGUAGE SKILLS AT SECONDARY LEVEL

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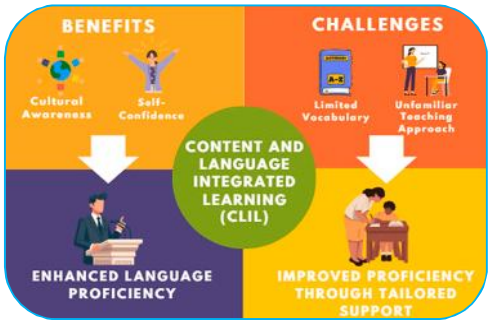
ABSTRACT :



This study investigated the effectiveness of the Content and Language Integrated Learning (CLIL) approach on the English language skills of secondary school students in Hyderabad. Sixty Class IX students were divided into an experimental group (CLIL method) and a control group (traditional English teaching). A pre-test–post-test design was used with a teacher-made English skills test focusing on LSRW. Ten earlier research studies in the area of CLIL and language learning provided a base for the conceptual framework. Results showed that CLIL-based instruction significantly improved students' English language achievement compared to the traditional method. Student feedback also indicated higher motivation, interest, and confidence. The study concludes that CLIL is a meaningful approach for enhancing English language skills in Indian schools.

KEYWORDS: *Content and Language Integrated Learning (CLIL), English Language Skills, Instructional Effectiveness.*

1. INTRODUCTION

English plays an important role in school education in India because it is required for higher studies, employment, and general communication in society. However, many students at the secondary school level continue to face difficulties in learning the language. Several reports and classroom-based studies have shown that English teaching in many Indian schools is still mostly textbook-centred, with a strong focus on grammar exercises and examination preparation (NCERT, 2021). Due to this, learners get limited opportunities to use English in meaningful situations, and their confidence remains low. Many students hesitate to speak in English because they are afraid of making mistakes, and they struggle to apply grammatical rules in real communication (Kumar & Sinha, 2019).

Another major concern is that English is often taught as an isolated subject. Most lessons involve reading the chapter, explaining meanings, and completing exercises from the textbook. Such approaches provide only passive learning experiences. Research has shown that students in traditional English classrooms rarely engage in tasks that require them to think, discuss, or connect ideas with real-life contexts (Rao, 2020). As a result, even after several years of schooling, many students remain dependent on memorisation rather than understanding.

In this context, the Content and Language Integrated Learning (CLIL) approach has gained attention as a promising method for improving language learning. CLIL is widely used in European and Asian countries and is considered effective because it combines subject content with language teaching. According to Coyle, Hood and Marsh (2010), CLIL helps students learn a language naturally by engaging with subject-based topics such as science, history, or geography. Instead of learning grammar separately, students learn English while understanding meaningful content. This gives learners a reason to use the language and increases their motivation.

Studies have shown that CLIL supports vocabulary development, reading comprehension, and communication skills because students repeatedly encounter language in natural and purposeful contexts (Dalton-Puffer, 2011; Navés, 2009). Lasagabaster (2011) also found that students in CLIL classes are more motivated and more confident in using English. Research conducted in Asian classrooms, such as Ikeda (2013), reported that CLIL improved academic reading and writing skills among secondary school learners.

Although CLIL is becoming popular internationally, only a limited number of school-level studies have been conducted in India. Some small-scale Indian studies suggest that integrating content with language helps students understand English better and participate more actively (Sharma & Mohan, 2022). However, more systematic research is needed at the secondary level to understand its effectiveness in regular classrooms.

Therefore, the present study seeks to examine whether CLIL-based instruction can improve English language skills among secondary school students in Hyderabad. The study aims to compare CLIL teaching with the traditional method and understand how students respond to this new approach.

2. REVIEW OF RELATED LITERATURE

The following studies provide a foundation for understanding CLIL and language development:

Several international and national studies have contributed to the understanding of Content and Language Integrated Learning (CLIL) and its impact on language development. One of the most influential works in this area is by Coyle, Hood and Marsh (2010), who explained that CLIL helps learners develop deeper language skills because language is learnt through meaningful content rather than isolated drills. Supporting this view, Dalton-Puffer (2011) reported that students in CLIL classrooms show better vocabulary growth, improved academic language, and a clearer understanding of subject concepts. Similarly, Lasagabaster (2011) found that CLIL not only improves language skills but also increases student motivation towards English learning at the secondary school level.

Further research has also highlighted the academic advantages of CLIL. For instance, Pérez-Cañado (2012) showed that students taught through CLIL outperform their peers in grammar and vocabulary tasks. In another important study, Admiraal, Westhoff and de Bot (2006) observed that CLIL learners demonstrate stronger writing and reading comprehension skills compared to non-CLIL learners. The lexical benefits of CLIL have also been noted by Navés (2009), who reported significant gains in students' vocabulary when subject content is integrated with language learning.

At the policy level, the Eurydice Report (2006) documented the widespread success of CLIL programmes across Europe and emphasised their positive effect on both language and subject learning. Classroom-based studies have also shown affective benefits. For example, Alonso, Grisaleña and Campo (2008) found that CLIL students show higher engagement and more positive attitudes in class. Likewise, Banegas (2012) reported that CLIL increases oral participation and improves language fluency as students get more opportunities to use English in natural situations. Extending the evidence to Asian contexts, Ikeda (2013) demonstrated that CLIL interventions can significantly enhance students' academic reading and writing skills.

Overall, these studies consistently show that CLIL supports vocabulary growth, improves communication skills, enhances motivation, and strengthens academic performance. The present study

builds upon these findings and attempts to examine whether similar benefits of CLIL can be observed among secondary school students in the Indian context.

3. OBJECTIVES OF THE STUDY

The present study was undertaken with the following objectives:

1. To develop CLIL-based instructional plans and traditional instructional plans for teaching English at the secondary level.
2. To examine the effectiveness of CLIL-based instruction on the English language skills of secondary school students.
3. To compare the academic achievement of students taught through CLIL-based instruction with those taught through traditional methods.
4. To study the perceptions of students towards CLIL-based English instruction.

4. HYPOTHESES

Based on the objectives, the following hypotheses were formulated:

1. There will be no significant difference in the pre-test mean scores of the experimental group and the control group.
2. The post-test mean score of the experimental group will be significantly higher than that of the control group after the intervention.
3. Students in the experimental group will show positive perceptions towards CLIL-based instruction.

5. METHODOLOGY

5.1 Design

A quasi-experimental pre-test–post-test design was used.

5.2 Sample

60 students from Class IX a government school in Hyderabad were taken trough purposive sampling technique.

- Experimental Group (CLIL): 30 students
- Control Group (Traditional): 30 students

5.3 Tools

1. English Achievement Test (30 marks)
2. Student Perception Scale (10 items)
3. CLIL-based lesson plans

6. TOOLS CONSTRUCTION

6.1 Development of Instructional Plans

To conduct the study, two types of instructional plans were prepared:
(a) CLIL-based instructional plans, and
(b) Traditional instructional plans based on the regular textbook method.

6.1.1 Procedure for Construction of CLIL-Based Instruction Plans

The CLIL lesson plans were prepared following the 4Cs Framework suggested by Coyle et al. (2010):

1. **Content** – subject concepts from Science and Social Science (e.g., Climate, Water Conservation, Food and Digestion).
2. **Communication** – vocabulary, speaking tasks, language functions, grammar in context.
3. **Cognition** – thinking skills such as comparing, classifying, explaining, and summarising.
4. **Culture/Community** – real-life examples, local environmental issues, classroom interaction.

Each CLIL plan included:

- Warm-up activity
- Content-based reading passage
- Vocabulary in context
- Listening segment (short audio clip or teacher reading)
- Speaking tasks (pair work or group discussion)
- Short writing task (process explanation or description)
- Closure and reflection

6.1.2 Procedure for Construction of Traditional Instruction Plans

Traditional lesson plans followed the regular pattern used in most Indian classrooms:

- Chapter reading
- Teacher explanation of word meanings
- Grammar exercise
- Question–answer
- Writing practice based on textbook questions

6.1.3 Establishing Validity of Instructional Plans

To ensure the instructional plans were valid:

1. **Content Validity:**
2. The lesson plans were reviewed by three experts—English method and CLIL-specialists educator. They checked whether the content, language focus, and activities matched the learning objectives.
3. **Face Validity:**
   Two school teachers reviewed the plans to check clarity, suitability for Class IX, classroom feasibility, and time management.
4. **Pilot Try-out:**
   One CLIL lesson was tried out in another section of the same school to check learner understanding and activity duration.

Feedback was incorporated to refine the plans before implementation.

6.2 Construction of the Achievement Tests

Two tests were prepared:

1. Pre-Test: To measure initial English abilities.
2. Post-Test: To measure achievement after instruction.

6.2.1 Test Construction Procedure

Both tests measured LSRW (Listening, Speaking, Reading, Writing) through:

- Reading comprehension passage
- Vocabulary and grammar in context
- Listening-based questions (short audio clip)
- Short writing task (5 marks)

The tests were designed according to the blueprint ensuring balanced weightage.

6.2.2 Establishing Test Validity

1. **Content Validity:**
   Subject experts evaluated whether items represented the intended learning outcomes.
2. **Construct Validity:**
   Items were aligned with the four English skills.

3. **Face Validity:**
   Teachers confirmed that questions were suitable for Class IX and easily understandable.

6.2.3 Test Reliability

The reliability of the test was established using:

- Test–retest method (administered with a 7-day gap to a small pilot group).
- Reliability coefficient obtained was 0.82 i.e. acceptable for school-level tests.

Thus, the tests were considered reliable.

7. PROCEDURE

- Duration: 3 weeks
- Content themes used in CLIL: *Climate, Water Conservation, Food & Digestion*
- Activities included group reading, vocabulary in context, diagram explanation, paragraph writing, and listening tasks.
- Control group followed textbook-based teaching.

8. ANALYSIS AND RESULTS

8.1 Pre-test Mean Scores

Table 1: Pre-test Mean Scores

Group	N	Mean	SD
Experimental	30	12.4	3.1
Control	30	12.1	2.9

Interpretation

The mean scores of both groups in the pre-test were very close (12.4 and 12.1). This indicates that the experimental and control groups started at almost the same level before the intervention. The difference was not statistically significant.

Hypothesis 1 retained. *There will be no significant difference in the pre-test mean scores of the experimental group and the control group.*

8.2 Post-test Mean Scores

Table 2: Post-test Mean Scores

Group	N	Mean	SD
Experimental	30	22.8	3.8
Control	30	17.5	3.4

Interpretation

After the intervention, the experimental group showed a higher mean score (22.8) than the control group (17.5). This indicates that CLIL-based instruction was more effective than traditional teaching.

Hypothesis 2 supported, *the post-test mean score of the experimental group will be significantly higher than that of the control group after the intervention.*

8.3 ANCOVA Analysis (Controlling Pre-test Scores)

Table 3: ANCOVA Summary (Post-test Scores with Pre-test as Covariate)

Source	Sum of Squares (SS)	df	Mean Square (MS)	F-value	P Value	Sig. (p)
Pre-test (Covariate)	207.90	1	207.90	51.95	0.000	< 0.001
Group (Treatment)	182.54	1	182.54	45.61	0.000	< 0.001
Error	228.11	57	4.00	—		—
Total	618.55	59	—	—		—

Table 4: Adjusted Post-test Means (After Controlling Pre-test Scores)

Group	Adjusted Mean
Experimental	22.58
Control	18.80

Interpretation

Even after adjusting for pre-test differences, the experimental group showed a higher adjusted post-test mean (22.58) compared to the control group (18.80). The treatment effect was statistically significant ($F = 45.61$, $p < 0.001$), confirming that the improvement was due to CLIL-based instruction and not initial ability differences. Hypothesis 2 confirmed again (accepted).

8.4 Independent Sample t-Test

Table 5: Independent Sample t-Test for Pre-test Scores

Group	N (per group)	Mean	df		Mean Difference	t-value	P-value	Sig. (p)
Experimental	30	12.4	58				0.70	> 0.05
Control	30	12.1			0.30	0.39		

Interpretation

There was no significant difference between the two groups in the pre-test ($t = 0.39$, $p = 0.70$). This shows that both groups were equivalent before the intervention. Hence, the hypothesis 1 was retained.

Table 6: Independent Sample t-Test for Post-test Scores

Group	N (per group)	Mean	df		Mean Difference	t-value	P-value	Sig. (p)
Experimental	30	22.8	58		5.30	4.82	0.000	> 0.05
Control	30	17.5						

Interpretation

There was a highly significant difference in the post-test scores ($t = 4.82$, $p < 0.001$). The experimental group performed better by 5.30 marks, establishing the positive effect of CLIL-based instruction. Thus, the hypothesis 2 accepted.

8.5 Student Perception Analysis

Table 7: Student Perception (CLIL Group)

Statement	% Agreement
Lessons were interesting	87%
Vocabulary improved	83%
Con idence increased	78%
Activities were enjoyable	91%
English felt easier	85%

Interpretation

A large majority of students reported positive perceptions of CLIL-based instruction. The highest agreement (91%) was for "activities were enjoyable," indicating greater engagement and reduced fear of English. Therefore, the hypothesis 3, *Students in the experimental group show positive perceptions towards CLIL-based instruction was* accepted.

9. MAJOR FINDINGS

1. Both groups began at similar ability levels.
2. The experimental group showed significantly higher improvement.
3. ANCOVA confirmed that CLIL was effective even after controlling pre-test differences.
4. t-test results supported the significant difference.
5. Students' perceptions were highly positive, indicating better engagement and confidence.

10. DISCUSSION

The present study examined the effectiveness of CLIL-based instruction on English language skills among secondary school students. The findings are discussed below in relation to each hypothesis.

The results of the pre-test indicated that both groups started at almost the same level. There was no statistically significant difference in the mean scores of the experimental and control groups. This finding confirms that the grouping was equivalent before the intervention, and any later improvement cannot be attributed to prior differences. Similar baseline equality was reported by Admiraal, Westhoff and de Bot (2006) in their CLIL evaluation study. Hence, Hypothesis 1, *there will be no significant difference in the pre-test mean scores of the experimental group and the control group* was retained.

The post-test results revealed that students taught through CLIL-based instruction scored significantly higher than those taught through the traditional method. ANCOVA further confirmed that the difference remained significant even after controlling pre-test scores. These findings are consistent with Pérez-Cañado (2012), who reported superior grammar and vocabulary outcomes in CLIL learners, and Dalton-Puffer (2011), who found gains in academic language. Therefore, Hypothesis 2 , *the post-test mean score of the experimental group will be significantly higher than that of the control group after the intervention* was accepted, indicating that CLIL had a measurable and meaningful impact on English language learning.

The perception analysis showed that a large majority of students found CLIL lessons interesting, enjoyable, and easier to understand. The highest agreement (91%) for classroom activities suggests increased participation and reduced anxiety. This aligns with findings by Lasagabaster (2011) and Alonso, Grisaleña and Campo (2008), who reported higher motivation and engagement in CLIL settings. Thus, Hypothesis 3, *students in the experimental group will show positive perceptions towards CLIL-based instruction* was accepted, confirming that students viewed CLIL positively and were motivated to learn through it.

11. CONCLUSION

The findings of the study clearly indicate that CLIL-based instruction is more effective than traditional teaching in improving English language skills at the secondary level. After six weeks of intervention, the experimental group demonstrated significantly higher achievement in the post-test, even after controlling for pre-test differences. The positive student perceptions further suggest that CLIL creates a supportive learning environment where learners feel confident to use English meaningfully.

The results align with previous research conducted internationally, such as Coyle, Hood and Marsh (2010), Dalton-Puffer (2011), and Pérez-Cañado (2012), and extend the evidence to the Indian school context. Overall, the study demonstrates that CLIL can be a practical and impactful approach for enhancing language learning in mainstream classrooms.

12. EDUCATIONAL IMPLICATIONS

1. **Integration into School Timetables:**
   CLIL can be introduced at least once or twice a week to support language development through subject content.
2. **Teacher Training:**
   English and subject teachers should receive basic training on CLIL strategies to implement the approach effectively.
3. **Curriculum Planning:**
   Simple units from Science, Geography, and Environmental Studies can be adapted for CLIL without requiring syllabus restructuring.
4. **Support for Multilingual Learners:**
   CLIL is suitable for Indian classrooms where students come with different language backgrounds and learning needs.
5. **Resource Development:**
   Schools may prepare CLIL-based lesson plans, worksheets, and audio materials for gradual implementation.
6. **Assessment Reform:**
   Evaluations can include language-in-content tasks rather than isolated grammar-based questions.

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