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The Use of Flipped Learning with Technology Integration to Improve Students' Speaking Skills at MA Al-Ilham NW Selusuh

Penggunaan Flipped Learning dengan Integrasi Teknologi untuk Meningkatkan Keterampilan Berbicara Siswa di MA Al-Ilham NW Selusuh

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Abstract: *This Study Investigates The Effectiveness Of A Flipped Learning Model Integrated With Technology In Improving Students' Speaking Skills At MA Al-Ilham NW Selusuh. Employing A Quantitative Experimental Design With A One-Group Pre-Test And Post-Test, The Research Involved 20 Tenth-Grade Students Across Six Learning Sessions. Students Accessed Instructional Videos Outside The Classroom And Participated In Speaking Activities During Class Sessions. Data Were Collected Using Multiple-Choice Tests And Questionnaires. Results Revealed Significant Improvement In Students' Speaking Ability, With Mean Scores Increasing From 44.75 (Pre-Test) To 73.50 (Post-Test). A Paired Sample T-Test Confirmed The Significance Of The Improvement (T = -14.750, P < 0.001). Questionnaire Analysis Indicated Positive Perceptions Of Flipped Learning And Technology Integration, Including Enhanced Motivation, Confidence, And Classroom Participation. The Findings Demonstrate That Flipped Learning, When Supported By Technology, Is An Effective Pedagogical Approach To Fostering Students' Speaking Competence And Can Be Considered An Innovative Strategy For English Language Teaching In Indonesian Secondary Schools.*

Keywords: *Flipped Learning, Technology Integration, Speaking Skills, Experimental Research*

Abstrak: Penelitian Ini Meneliti Efektivitas Model Pembelajaran Flipped Learning Yang Terintegrasi Dengan Teknologi Dalam Meningkatkan Keterampilan Berbicara Siswa Di MA Al-Ilham NW Selusuh. Dengan Menggunakan Desain Eksperimen Kuantitatif One-Group Pre-Test Dan Post-Test, Penelitian Ini Melibatkan 20 Siswa Kelas X Dalam Enam Kali Sesi Pembelajaran. Siswa Mengakses Video Pembelajaran Di Luar Kelas Dan Mengikuti Aktivitas Berbicara Selama Sesi Tatap Muka. Data Dikumpulkan Melalui Tes Pilihan Ganda Dan Kuesioner. Hasil Penelitian Menunjukkan Adanya Peningkatan Signifikan Dalam Kemampuan Berbicara Siswa, Dengan Skor Rata-Rata Meningkat Dari 44,75 (Pre-Test) Menjadi 73,50 (Post-Test). Uji *Paired Sample T-Test* Mengonfirmasi Signifikansi Peningkatan Tersebut (T = -14.750, P < 0.001). Analisis Kuesioner Juga Mengindikasikan Persepsi Positif Terhadap Flipped Learning Dan Integrasi Teknologi, Termasuk Peningkatan Motivasi, Kepercayaan Diri, Serta Partisipasi Di Kelas. Temuan Ini Membuktikan Bahwa Flipped Learning, Ketika Didukung Oleh Teknologi, Merupakan Pendekatan Pedagogis Yang Efektif Untuk Mengembangkan Kompetensi Berbicara Siswa Dan Dapat Dianggap Sebagai Strategi Inovatif Dalam Pengajaran Bahasa Inggris Di Sekolah Menengah Di Indonesia.

Kata Kunci: Flipped Learning, Integrasi Teknologi, Keterampilan Berbicara, Penelitian Eksperimen

1. INTRODUCTION

Speaking Competence Is Widely Recognized As A Fundamental Skill In Second And Foreign Language Acquisition, As It Enables Learners To Communicate Ideas, Emotions, And Social Meaning Effectively [1], [2]. However, English As A Foreign Language (EFL) Learners, Particularly In Indonesia, Often Encounter Challenges Such As Limited Vocabulary, Grammar Knowledge, Confidence, And Classroom Opportunities For Authentic Communication [3], [4]. Conventional Approaches, Dominated By Lectures And Rote Practice, Provide Insufficient Engagement And Fail To Prepare Students For Real-World Communicative Needs [5].

Flipped Learning Offers An Alternative By Inverting Traditional Classroom Structures. Instead Of Passively Listening To Teacher Explanations During Class, Students First Study Content Independently—Commonly Through Videos—Before Engaging In Active, Collaborative Practice During Classroom Sessions [6], [7]. This Shift Aligns With Student-Centered Pedagogy, Emphasizing Autonomy, Interaction, And Deeper Cognitive Engagement [8]. Research Shows That Flipped Classrooms Enhance Participation, Critical Thinking, And Language Performance Across Various Contexts [9].

Technology Integration Is Crucial To The Success Of Flipped Learning. Tools Such As Youtube, Google Classroom, And Edpuzzle Expand Access To Resources And Support Flexible, Individualized Learning [10], [11]. Effective Integration, However, Requires Pedagogically Sound Planning Rather Than Superficial Adoption Of Digital Tools [12]. In Indonesian Schools, Limited Infrastructure And Teacher Reliance On Lecture-Based Methods Often Hinder Students' Communicative Development, Particularly In Speaking [13].

Against This Background, The Present Study Examines The Implementation Of A Technology-Supported Flipped Learning Model To Enhance The Speaking Skills Of Tenth-Grade Students At MA Al-Ilham NW Selusuh. Specifically, It Seeks To Determine The Extent Of Improvement In Speaking Performance And To Explore Students' Perceptions Of This Instructional Model.

2. RESEARCH METHOD

This study employed a quantitative, pre-experimental design using a one-group pre-test and post-test [14]. The participants were 20 tenth-grade students at MA Al-Ilham NW Selusuh, selected through purposive sampling based on their access to digital devices and willingness to participate.

2.1 Instruments

Two instruments were employed: (1) a 20-item multiple-choice test administered before and after the intervention to assess comprehension of video content as an indirect measure of speaking readiness, and (2) a questionnaire with a four-point Likert scale to capture student perceptions of flipped learning and technology integration. Both instruments were validated by experts and tested for reliability (Cronbach's Alpha = 0.617 for flipped learning items; 0.807 for speaking ability items).

2.2 Procedure

The research lasted six sessions. The first session involved the pre-test, followed by four sessions of flipped learning activities where students studied videos before class and engaged in speaking tasks (retelling, dialogues, presentations) during class. The final session was a post-test.

2.3 Data Analysis

Data were analyzed using descriptive statistics (mean, minimum, maximum, standard deviation) and inferential statistics. A paired sample t-test was conducted to determine the significance of differences between pre-test and post-test scores ($p < 0.05$ considered significant). Questionnaire data were analyzed descriptively to determine student perceptions.

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3. RESULTS AND DISCUSSION

3.1 Descriptive Statistics

The results demonstrate a mean score increase of 28.75 points, indicating a substantial improvement in students' speaking-related performance.

3.2 Hypothesis Testing

A paired sample t-test revealed $t = -14.750$, $df = 19$, $p < 0.001$, confirming a statistically significant difference between pre-test and post-test scores. This suggests that flipped learning with technology integration positively affected students' speaking skills.

3.3 Questionnaire Findings

Students reported positive perceptions of the flipped classroom approach. Most agreed that technology-based videos enhanced their understanding, motivation, and readiness for class. They also noted increased confidence and active participation during speaking activities.

3.4 Discussion

These findings align with Yilmaz [6], who emphasized that flipped learning allows students to learn at their own pace, and McLaughlin et al. [8], who found that class time becomes more interactive and productive. The role of technology in this process is critical, providing flexible, accessible materials that extend learning beyond the classroom [10][17]. Moreover, the results corroborate studies by Rahman and Hajar [15] [18] and Santhanasamy and Yunus [16][19], which demonstrated improvements in students' speaking skills through flipped learning.

Importantly, this study also highlights the equalizing effect of flipped learning: students across varying initial skill levels showed improvement, consistent with Ng [9], who noted that well-designed flipped classrooms support diverse learner needs. The reduction in standard deviation from 13.13 (pre-test) to 11.25 (post-test) confirms more balanced outcomes across the cohort.

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4. CONCLUSION

This Study Concludes That Flipped Learning Integrated With Technology Significantly Improves Students' Speaking Skills At The Secondary School Level. The Combination Of Pre-Class Video Study And In-Class Speaking Practice Enhanced Student Performance, Confidence, And Engagement. Statistical Tests Confirmed That Improvements Were Not Coincidental But Attributable To The Intervention. Therefore, Technology-Supported Flipped Learning Represents An Effective And Innovative Instructional Approach For EFL Contexts, Particularly Where Traditional Lecture-Based Methods Have Dominated.

5. CLOSING STATEMENT

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