English Movie Autonomous Learning to Improve Students' English Literacy from the Perspective of STEAM

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Keywords: English Literacy, Extracurricular Autonomous Learning, English Movies, STEAM Theory, English Audio-visual-oral Course

Abstract: This research starts with the English Audio-visual-oral course in Law major class grade 2022, 50 original Disney English movies as the main materials (including movie videos, audio, and the entire movie's lines), and is conducted by utilizing STEAM teaching philosophy to expand film content and improve students' listening and speaking abilities.

1. Introduction

One of the main driving forces for Chinese students, especially college students, to learn English is the need to take various English exams, such as the English part of the college entrance examination, the public English of the postgraduate entrance examination, College English Test (CET) band 4 and 6 and the Public English Test System (PETS) during college. But Students' English language ability is shown by their comprehensive English literacy rather than the marks of English tests. To improve their English literacy, teachers should pay much value on their practical English application ability, especially speaking and listening for daily communication. As movies are popular among college students, teachers should optimize their interest and take English movies as their motivation for practising English listening and speaking, using STEAM theory to explore more topics relative to the clips of the movies and expand their knowledge with all-subject thinking.

2. Literature review

STEAM is the abbreviation for Science, Technology, Engineering, Arts, and Mathematics, but it is not a simple addition of them. Instead, they are organically integrated through practice, first proposed and practiced by the United States, and widely applied. Foreign research on extracurricular autonomous learning under the STEAM teaching concept mainly focuses on stimulating students' thinking, encouraging them to actively explore problems, and helping them complete autonomous learning tasks [2]. *The STEAM approach: Implementation and educational, social and economic consequences* [6] provides examples of successful STEAM programs, offering a reference on how to adopt STEAM theory to this research.

English movies are commonly used for English learning for its great impact[13]. There are many

studies on autonomous learning of English movies in China, but most of them remain at the level of language learning, such as *Film-based English teaching and the cultivation of students' autonomous learning ability* [5]. Even if it takes into account the learning of background culture and the cultivation of cross-cultural communication skills, such as *AI-based English teaching cross-cultural fusion mechanism* [12], there is also no deep interdisciplinary perspective to explore cultural knowledge.

The research of this topic is to use the STEAM teaching concept in the classroom to guide students to autonomously learn English movies outside of class based on Quigley and Herro's experience [11]. By repeatedly inputting the entire movie and deeply understanding the background cultural knowledge, it inspires students to integrate multidisciplinary knowledge, think about problems from every detail, discover and solve problems, and then through group cooperation, reproduce movie scenes, and output using the "performance method", Finally, by creating and directing innovative films, we aim to cultivate and improve English core literacy in four dimensions: language ability, learning attitude and abilities, and cultural awareness.

3. Research Design

3.1. Research Participants

This research is conducted among the researcher's teaching classes of Law major Grade 2022, class 1 with 44 students as the experimental class, and class 2 with 45 ones as controlled class.

They were chosen for this research because as freshmen they had no mandatory English listening and speaking test as their heavy task, they even didn't know how and what to learn for English. The teacher and researcher timely guided their interests in English movie learning. With plenty of free time, they could do well according to the teacher's instruction.

3.2. The Study was Guided by the Following Research Questions

(1) Does the integration of English movies into the curriculum with STEAM philosophy enhance students' listening and speaking abilities?

(2) How does autonomous learning of English movies influence student engagement and motivation towards English learning?

(3) How does learning through English movies with STEAM impact students' comprehension and interpretation of cultural contexts in English language films?

3.3. Research Procedure

The specific procedure is as follows:

1) Teachers should collect and organize excellent English soundtrack films to form gradient, constructive, and systematic English soundtrack film resources, and share the resources with students in a reasonable manner;

2) Teachers should conduct 1-3 demonstration classes on learning English through English soundtrack movies to ensure that students can master the strategies and methods for autonomous learning of English movies;

3) "Air-Method" Input: "The Air Method" is an English learning method that utilizes movies as the main learning material. It was proposed by American linguist J. Marvin Brown [1]. He believed that learning English should be as natural as breathing, rather than simply memorizing vocabulary and grammar rules. As proved by Metruk [10], by watching English movies, learners can acquire knowledge of pronunciation, intonation, vocabulary, grammar, and other aspects in a natural

context, which can help improve their listening and speaking skills.

Students were asked to select one of the fifty original Disney English films and watch it for once, and then repeatedly listen to it in audio format, keeping their ears exposed to the film audio like air. During the process of repeated input, they intentionally or unintentionally stimulated their ears, making them accustomed to the English language, thus achieving the goal of gradually understanding from incomprehension. They were also influenced by the characters in the film to boldly innovate, discover problems, and solve problems, Until one can integrate and fully understand the deep interdisciplinary knowledge contained in the film;

4) Expanding background cultural knowledge from multiple perspectives: according to Katchen, [7] and David Swartz [4], through the questioning method, teachers can guide students to appreciate movies with their thinking, understand the background of film creation, think about the background cultural knowledge that appears in the movie from details, and expand from multiple perspectives and directions, taking the movie Rio for example the background music culture, painting art, background city of Rio's geographical and historical knowledge, festival culture, and the skillful integration of slums and wealthy areas in the movie. The expansion and extension of tropical rainforest, sunny coasts, and so on;

5) Performance input and output process: according to Cook's [3] and [14] research, in order to stimulate students' enthusiasm during the repeated input of the movie, it is possible to stimulate their desire for performance, imitate the exaggerated movements, expressions, and melodious tones in the movie, and enable students to naturally learn the pronunciation and intonation of the original sound of the movie during play. Then, by following and performing the lines, they can master the sentences inside and use the cultural knowledge in the movie to express more English;

6) Task assignment and effectiveness evaluation: Getting the first movie done is crucial. The first movie was designated by the teacher and completed by the students. It was required to be able to understand the movie without subtitles, and then without the screen, and to blurt out the lines in any segment, and even to write and direct a new movie based on learned movie. In addition to the limited classroom time of 8 weeks in a semester, students can and should use their leisure time in the evening to complete autonomous learning of movies to make up for the lack of classroom learning time. To encourage students to learn autonomously, the teacher encouraged them to shoot videos every week to show their film performances, provided technical guidance, and regularly reviewed evaluations. This was not only an important language output, but also an effective way to evaluate the effectiveness.

7) The school should carry out extracurricular activities for students to autonomously learn English movies and improve their English literacy. Vandergrift [15] emphasized improving learners' oral and listening skills by learning English in a natural context, stimulating students' interest and learning motivation. As stated in *English Major Students' Perceptions Towards Watching English Movies in Listening and Speaking Skills Development* [9], English movies provide students a natural language environment for student's autonomous. Students were required to submit their learning summaries and group-performance videos on a weekly basis.

3.4. Research Instruments

This research implemented two primary tools as research instruments: group performance and weekly summaries by students.

Group performance videos: students were divided into seven groups, with six participants in each group, and given tasks related to English movies. The tasks ranging from re-enacting scenes, delivering monologues, to designing alternative plotlines or characters using the English language, were required to submit at least twice a week. Different groups of students could choose one

cartoon movie to perform based on their own preferences. By assessing group performances related to tasks derived from English movies, the researcher gathered qualitative data on listening and speaking abilities, engagement and motivation as well as comprehension of cultural contexts, the three aspects related to the research questions.

Weekly summaries: in line with the STEAM teaching philosophy, students were required to write weekly summaries in groups reflecting on their learning experiences. These summaries provided insights into the students' learning process, their understanding of the movie content, their language acquisition progress, and their overall engagement with the course. By assessing group performances related to tasks derived from English movies, the researcher paid special attention to students' progress in their listening and speaking abilities, engagement and motivation as well as the ability to explore and expand cultural knowledge with STEAM theory.

3.5. Data Collection and Analysis

Data were collected in 8 teaching weeks. The group performance videos and weekly summaries were collected at the end of each week. The collected data subjected to qualitative analyses, provided a robust basis for qualitative analysis.

For group video performances and weekly summaries, a content analysis approach was taken based on Krippendorff's *Content Analysis: An Introduction to Its Methodology* [8]. The performances were examined for the complexity and fluency of language, the variety of vocabulary used, and the accuracy of pronunciation. The summaries were analyzed for changes in students' attitudes, motivations, and self-reported usage of English over time.

4. Results and Findings

Three groups of performance videos were chosen randomly for drawing the results and findings, as shown in Table 1:

Table 1: Results and findings of the Group Performance Videos

Group Performance Videos	Listening and Speaking Abilities	Engagement and Motivation	Comprehension of Cultural Contexts
Group 1 - Rio	Students demonstrated improved pronunciation and speaking fluency.	Students showed high engagement during the preparation and rehearsal. Their hand-made wings of birds showed their passions.	Students reshow the cultural elements in Rio clips, like the music culture, the rainforest culture.
Group 2 - The Croods	Pronunciation and intonation were getting clearer and more natural, leading to better listening and speaking.	Students were motivated to work together for a successful performance for language improvement and future anniversaries.	Cultural themes and values (importance of family, courage and adaptability)were highlighted and interpreted better an better .
Group 3 - Huamulan	Improved speaking skills were evident in fluency and word usage.	Students actively participated and expressed excitement for future performances and learning.	Cultural traditions were performed authentically, showing their filial Piety, honor and duty, courage and perseverance

Table 2 presents the results and findings in relation to the research questions from a randomly selective students' weekly summaries.

Table 2: Results and findings of Students' Weekly Summaries

Research Questions	Students' Weekly Summaries	Results and Findings
(1) Does the integration of English movies into the curriculum with STEAM philosophy enhance students' listening and speaking abilities?	- All members of the group completed their study plans, watched English videos, and communicated in English in daily life. - One student mentioned that she recited words by watching English movies, and felt that her vocabulary increased at ease. - Another student showed her progress in listening skills, and was able to use some movie language even without her own noticing. - Some students expressed challenges in completing the learning goals due to diverse activities, but they acknowledged the need for better time management to allocate more time for movie learning.	Students felt that their listening level improved, and they recognized the importance of English listening. Paying attention to listening to the standard and native English in the movies, they felt obvious improve in speaking too.
(2) How does autonomous learning of English movies influence student engagement and motivation towards English learning?	- Students showed different levels of engagement in autonomous learning, with some sticking to their plans and others facing distractions from using mobile devices. - Some students appreciated the use of mobile apps and online resources for learning English, while others struggled with the balance of entertainment and focused learning. - Two groups of students found more passion and motivation as they shoot better group performance videos.	Though some experienced difficulty in maintaining self-discipline and overcoming distractions from mobile devices, more are motivated as they engage themselves more in English movies.
(3) How does learning through English movies impact students' comprehension and interpretation of cultural contexts in English language films?	- Some students mentioned watching English cartoon movies and understanding characters' personalities and charm in dialogues. - A student found it interesting to imitate dialogue from movies, while digging out more interesting culture. - One student highlighted the importance of exploring the relative culture in the movies since she could always learn more English from the expanded culture.	Students experienced the benefit of exploring different cultures from English movies.

Form the above two forms, we can find the results in accordance with the three research questions.

First, through the group performances and weekly summaries, it was observed that most students reported a perceived improvement in their English language skills over the duration of the course. The group performance videos highlighted a more precise imitation of language intonation, pronunciation, and dialogue rhythm, showing the influence of STEAM philosophy in extending learning from movies, such as the exploration of related words and cultural elements. Furthermore, the weekly summaries echoed the students' growing ability to express complex ideas and analyze cultural elements in English, with advanced use of vocabulary and grammatical structures, which can be attributed to the STEAM-enhanced learning of movie content, including

Second, the inclusion of English movies in the curriculum and its combination with the STEAM philosophy can bolster student engagement and motivation. As shown in their increasing passion in shooting their group performance videos, and as stated in their weekly summaries, students experienced a growing interest in English and a heightened motivation to learn, which they

attributed to the autonomous learning facilitated by movies integrated with the STEAM approach.

Third, learning English movies with the infusion of the STEAM philosophy appeared to enhance students' comprehension and interpretation of cultural contexts. Their group performance videos often dig out more deeper relative culture from the movie. In their weekly summaries, students often commented on new cultural insights they gained from the movies too.

In conclusion, the integration of English movies into the curriculum, when combined with the STEAM teaching philosophy, seems to enhance language proficiency, improve listening and speaking skills, stimulate engagement and motivation, and provide a better understanding of cultural contexts for non-English major students. The students' perceptions, as gathered through various qualitative instruments, provide strong support for the effectiveness of this pedagogical approach. Further studies could be valuable to explore its potential in other language-learning contexts.

5. Conclusion

The integration of English movies into the curriculum of English Audio-visual-oral course, fortified by the STEAM philosophy, has demonstrated substantial potential in cultivating language proficiency, bolstering listening and speaking skills, enhancing student engagement and motivation, and enriching understanding of cultural contexts. This pedagogical approach, characterized by its creative fusion of media resources and STEAM-driven, context-aware learning, has shown its unique benefits for non-English major students, fostering not only language acquisition but also intercultural competence. The feedback collected from the weekly summaries and group performance videos provides compelling evidence of the method's effectiveness, revealing a marked improvement in students' English language abilities and their engagement with the learning material.

This study has thus contributed valuable insights into innovative language teaching methodologies, emphasizing the significance of resource integration, autonomous learning, and interdisciplinary instruction. However, the dynamic nature of language education necessitates continuous exploration and research. Therefore, future studies are encouraged to expand on this research, investigating the applicability of the STEAM-infused English movie study in different educational settings and for different target groups, and perhaps even extending the research framework to include other forms of media. In this way, we may continue to advance and refine our teaching strategies, striving for optimum educational outcomes in the ever-evolving landscape of language education.

Acknowledgement

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