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Green Discussion: Raising ESP Students' Environmental Awareness Through Film Circles

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***Abstract*—As global citizens, we need to develop environmental awareness to protect the environment. This study aims to compare students' environmental awareness before and after implementing film circles and investigate their attitudes towards the use of film circles in an English for Specific Purposes (ESP) classroom. The participants were 30 dual program students in education and social development, also regarded as pre-service social studies teachers. A mixed-method study, using the one-group pre-test-post-test design, was conducted. Both qualitative and quantitative research methods were included. The instruments included film circle lesson plans, an environmental awareness assessment with 3 domains, including environmental knowledge, attitudes and behaviours, and an attitude towards film circles questionnaire. The findings revealed that the students believed that their environmental knowledge, attitudes and behaviours improved. They also had positive attitudes towards the use of film circles in raising their environmental awareness in the ESP classrooms. This study appears to echo the integration of environmental issues or themes into English classrooms.**

***Index Terms*—film circles, English for Specific Purposes, Sustainable Development Goals, environmental problems, environmental awareness**

I. Introduction

It is obvious that people around the world have been dealing with a diverse range of ecological concerns (Yildiz & Budur, 2019), and the problems have been consistently worsening (Koculu & Girgin, 2022). Moreover, the ecosystem is deteriorating as a result of human-unfriendly activities such as land conversion, illegal logging, forest fires, river and ocean pollution, and the overuse of plastics (Setyowati et al., 2020). To highlight this, countries across the globe have formally adopted the Sustainable Development Goals (SDGs), which aim to ensure a sustainable, prosperous, peaceful, and equitable life for all people, both presently and in the years to come (UNESCO, 2017). The SDGs address the urgent problems of climate change and environmental protection while also addressing a range of socio-economic needs, such as education, healthcare, social protection, and work opportunities (UNESCO, 2017). Maintaining a balance between addressing human needs and ensuring environmental sustainability should be a mutual objective, in line with the agenda of the SDGs, to secure the sustainability of life in the future (Hermawan et al., 2022).

To shed light on solving environmental issues, environmental awareness holds significance for every global citizen including students. The term "environment awareness" describes an individual's understanding of the natural environment and the behaviours that either protect or damage it (Kousar et al., 2022). Educational institutions including universities have a significant impact on students' environmental awareness and eco-friendly behaviours (Kousar et al., 2022; Mkumbachi et al., 2020). It should be noted that the domains of environmental awareness explored by researchers differ. This can include environmental knowledge, environmental attitudes, and environmental behaviours (Aliman et al., 2019; He et al., 2011; Laabidi & Charafi, 2023).

Environmental awareness should be promoted including among pre-service social studies teachers. In Thailand, there is a need for hiring social studies teachers in both public and private schools. Those interested in becoming social studies educators may consider teaching the subject in English program schools. Additionally, social studies teachers play a role in raising awareness among students by incorporating lessons that emphasize the connection, between human societies and the environment. Sukma et al. (2020) reveal that teachers indicate their belief in the importance of educating students about the environment since elementary school.

English for Specific Purposes (ESP) has the potential to improve students' proficiency in English, enhance their knowledge within their specific fields, and increase their awareness of global issues, all in alignment with their particular needs. ESP is an approach that focuses on teaching English customized to the needs and interests of a particular group of learners (Chetia & Bhatt, 2020; Hutchinson & Waters, 1987). Undoubtedly, the primary goal of language teaching is to teach the language, however, incorporating global crises into its content can contribute to

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sustainable goals (Hameed, 2023). Bhusal (2021) points out that, in the contemporary world, English teaching-learning activities extend beyond merely instructing theoretical, grammatical, and linguistic aspects; it is crucial to also incorporate environmental education. Moreover, it is now undeniable that language learners should possess an awareness of global issues (Mete, 2018).

Film circles or movie circles are among the potential classroom activities that can enhance students' environmental awareness. The activities were adapted from literature circles; however, in film circles, films are used instead of books (Stephens et al., 2012). Students are assigned specific roles within the group, ensuring that every member actively participates in their environmental discussions related to films and their experiences.

Most studies on literature circles and their adaptations, such as using films and other media, focus on enhancing speaking or communication skills (Brazenas, 2019; Matmool & Kaowiwattanakul, 2023; Stephens et al., 2012). However, it is important to explore how these activities can be utilized to increase environmental awareness since students can discuss environmental themes in films. This can support incorporating the environmental protection aspect, which is important for the SDGs, into ESP courses. Therefore, this study aims to compare ESP students' environmental awareness before and after implementing film circles and investigate their attitudes towards the use of film circles in an ESP classroom.

II. Literature Review

A. Environmental Awareness

Considering the importance of tackling environmental concerns, fostering environmental awareness among individuals including ESP students is important. The term environmental awareness has been defined by numerous scholars. To name a few, Kousar et al. (2022) mentioned that the term "environment awareness" describes an individual's understanding of the natural environment and their behaviours that either protect or harm it. Ham et al. (2016) stated that it can be broadly defined as the perspective or attitude regarding the environmental impacts resulting from human behaviours. Geng and He (2021) defined it as the public perception towards environmental problems.

As societies began to exploit natural resources as if they were limitless to improve their quality of life as a result of industrialization, the natural balance began to suffer (Önal, 2020). Environmental education and awareness are essential because they help to lessen the harm that a variety of activities can do to the environment (Susilawati et al., 2021). Given that protecting the environment is everyone's responsibility, it is expected that by cultivating a positive environmental attitude in students, they will develop into caring individuals (Setyowati et al., 2022).

In the present study, environmental awareness refers to individuals' understanding of the environment as well as attitudes towards and behaviour towards protecting it. Furthermore, this study supports students' awareness of protecting the environment.

B. Film Circles

A film circle activity is a group activity in which students watch a film and are assigned different roles to perform the group discussion about the film. Film circles, or movie circles, were adapted from literature circles (Stephens et al., 2012), which have been successfully used in language classrooms for decades. While students read the same piece of literature (Daniels, 2002), students watch a film instead of books in film circles (Stephens et al., 2012). Moreover, since film circles were adapted from literature circles, it is necessary to introduce literature circles. Literature circles align with reader-response theory as students engage in collaborative reading and discussion with their peers (Chiang, 2018). The activities are small, peer-led discussion groups in which the group members have selected to read the same piece of literature (Daniels, 2002). In this study, while the students in literature circles typically respond to texts based on reader-response theory, the students in this study responded to the chosen films during film circles.

III. Research Methodology

A. Research Design

A mixed-method study, using the one-group pre-test-post-test design, was conducted. This study also investigated the students' attitudes towards the use of these learning materials and activities. Both qualitative and quantitative research methods were included.

B. Participants

The research comprised 30 second-year students pursuing a dual program in education and social development, also regarded as pre-service social studies teachers. These students have the opportunity to pursue careers in schools and social development sections. During the second semester of the academic year 2023, the students enrolled in an ESP course at a public university of medium size located in the north of Thailand. The purposive sampling technique was utilized to select participants for this study.

C. Research Instruments

(a). Lesson Plans

Eight lesson plans employing film circles to promote the students' environmental awareness were constructed. The students selected four environmental films to incorporate into the lessons, namely The Lorax (2012), WALL·E (2008), The Day After Tomorrow (2004), and 2012 (I) (2009).

Each lesson required students to watch half of the film and participate in a film circle, rotating roles across three key steps: pre-viewing, viewing, and post-viewing.

Firstly, during the pre-viewing stage, a brief talk about the film and the presentation of vocabulary, environmental issues and background information about the film were conducted to develop the students' schema knowledge.

The viewing stage engaged students with the narrator, settings, situations, characters, and actions. In this stage, students were divided into groups of 5-6. Role sheets adapted from Daniels (2002) were distributed to the students before they watched a film. In this study, roles including a questioner, a film master, a connector, an illustrator, a summarizer, and a word wizard were assigned. While watching, the students were required to complete their role sheets.

Lastly, in the post-viewing stage, the students were encouraged to reflect on the environmental issues depicted in the film and to connect these themes with their experiences in both educational and social development contexts.

The lesson plans were approved by three experts who had over a decade of experience in teaching English.

(b). Environmental Awareness Assessment

An environmental awareness assessment was employed to examine and compare students' environmental awareness before and after the use of film circles. This study examined three areas: environmental knowledge, environmental attitudes, and environmental behaviours (He et al., 2011; Laabidi & Charafi, 2023).

To begin, the knowledge domain of environmental awareness, considering that true-or-false questions can be used to investigate environmental knowledge as in a study by He et al. (2011), 16 items of true-or-false questions were created to assess general knowledge of the environment, including the environmental problems in Thailand.

The second section also examines students' knowledge. Considering the fact that self-assessed knowledge questionnaires continue to be a widely adopted method for collecting data regarding knowledge levels (Chen & Tsai, 2016), 4 items of self-assessed knowledge questionnaires were created. The areas of knowledge were four themes of the selected films, including forests, waste management, climate change, and natural disasters. The scale utilized in this section features five response options from very high (rated as 5) to very low (rated as 1).

Then, the third section is about students' environmental attitudes. Attitude items were adapted from Hameed (2023) and were designed by the researchers based on the importance of the environment and tackling environmental issues in English classrooms. The scale utilized in this section features five response options from strongly agree (rated as 5) to strongly disagree (rated as 1).

The last part is about the environmental behaviour domain. This study incorporated the items related to pro-environmental behaviours from a study by Janmaimool and Khajohnmanee (2019). However, since the items used in their study primarily focused on waste management, this study expanded its questionnaires to incorporate items related to broader environmental issues, such as pollution and deforestation. The scale features five response options from strongly agree (rated as 5) to strongly disagree (rated as 1).

The content validity of the questionnaire items was validated by seven Items Objective of Congruence (IOC) committees, including the three English experts, two experts from the social development field, and two experts from the environmental health field. The overall IOC was 0.94.

(c). Attitude Questionnaires Towards the Use of Film Circles to Raise Students' Environmental Awareness

Attitude questionnaires were employed to assess students' perspectives on integrating film circles to enhance environmental awareness in the ESP classroom. The questionnaires, utilizing a 5-point rating scale, consist of 10 items categorized into two sections: attitudes towards assigned roles in film circles and attitudes towards the benefits of employing film circles for environmental awareness. Responses are rated on a scale from strongly agree (5) to strongly disagree (1). The content validity of questionnaire items was conducted by the same three IOC English committees. The overall IOC of the two items was 0.83.

(d). Semi-Structured Interviews

Semi-structured interviews were designed to explore students' attitudes towards utilizing film circles to enhance environmental awareness in the ESP classroom. Individual interviews were conducted using two main questions: 1) "Do you think that employing film circles can raise your environmental awareness? If yes, how?" and 2) " Did you enjoy discussing environmental issues with your friends in film circles? Why?" Each interview lasted approximately 10 minutes. Additionally, the content validity of the items was assessed by the same three English IOC committees. The overall IOC was 0.67.

D. Data Collection

The study took place from January to March 2024. The researchers developed lesson plans incorporating films selected by the students and environmental topics suitable for discussion in film circles. A pre-test of environmental awareness assessment was then administered to examine students' environmental awareness. Over an eight-week period,

eight three-hour lesson plans were employed, totalling 24 hours. Each lesson included presentations on environmental knowledge, vocabulary and background of the film followed by film viewings and group discussions led by students in designated roles. Afterwards, a post-test of environmental awareness assessment and an attitude questionnaire were distributed. Semi-structured interviews conducted in Thai were utilized to further explore students' attitudes. Finally, both qualitative and quantitative data were analysed.

E. Data Analysis

(a). Data From the Environmental Awareness Assessment and the Attitude Questionnaire

Regarding the environmental awareness assessment, data analysis was conducted using SPSS. Initial tests of normality indicated that the data did not follow a normal distribution, as evidenced by significant results. Consequently, the Wilcoxon signed-rank test was used to assess whether there was a significant difference between the pre-and post-test scores of the first section, the ESP students' environmental knowledge.

In terms of the second section, self-assessed environmental knowledge, mean scores and standard deviation were employed for data analysis using SPSS. The interpretation was analysed as: 4.20–5.00 = very high, 3.40–4.19 = high, 2.60-3.39 = moderate, 1.80–2.59 = low, and 1.00–1.79 = very low.

Concerning the third section, environmental attitudes, and the fourth section, environmental behaviours, mean and standard deviation were used. The interpretation of these sections was interpreted using the following scale: 4.20–5.00 = strongly agree, 3.40–4.19 = agree, 2.60-3.39 = neutral, 1.80–2.59 = disagree, and 1.00–1.79 = strongly disagree.

(b). Data From the Attitude Questionnaires Towards the Use of Film Circles to Raise Students' Environmental Awareness

Regarding data from the attitude questionnaires towards the use of film circles to raise students' environmental awareness, mean and standard deviation were used. The interpretation of these sections was interpreted using the following scale: 4.20–5.00 = strongly agree, 3.40–4.19 = agree, 2.60-3.39 = neutral, 1.80–2.59 = disagree, and 1.00–1.79 = strongly disagree.

The Likert scale interval range was adopted from Pimentel (2010) with slight differences of 0.79 and 0.80.

(c). Data From the Semi-Structured Interview Responses

The content analysis of the semi-structured interview responses focused on two primary areas: using film circles to enhance students' environmental awareness, and the enjoyment or advantages of discussing within film circles with classmates.

IV. Results

A. Students' Environmental Awareness

To compare the students' environmental awareness before and after employing film circles in the ESP classroom, four sections of the environmental awareness assessment were analysed.

(a). Students' Environmental Knowledge Using True-or-False Questions

TABLE 1
STUDENTS' ENVIRONMENTAL KNOWLEDGE USING TRUE-OR-FALSE QUESTIONS

		N	Mean Rank	Sum of Ranks	Z	Sig.
Pre – Post	Negative Ranks	11	11.68	128.50	-.066*	.947
	Positive Ranks	11	11.32			
	Ties	8				
	Total	30				

*Based on positive ranks.

To begin with the first section, Table 1 shows the results of using the Wilcoxon Signed Rank Test to determine a difference between the pre-test and post-test scores of environmental knowledge of the ESP students using true-or-false questions. The Wilcoxon Signed Rank Test results indicated that there was no significant difference between the mean scores (Z=-.066, p = 947).

(b). Students' Self-Assessed Environmental Knowledge

TABLE 2
COMPARISON OF STUDENTS' SELF-ASSESSED ENVIRONMENTAL KNOWLEDGE

Assessment	N	Mean	SD	t	Sig.
Pre-assessment	30	3.52	0.53	6.280	.000
Post-assessment	30	4.18	0.59		

Table 2 displays the results of the second section, the students' self-assessed environmental knowledge. The pre-assessment mean score was 3.52 (SD = 0.53), while the post-assessment mean score was 4.18 (SD = 0.59). Unlike true-

or-false questions, there was a statistically significant difference in the students' self-assessed environmental knowledge. The table further illustrates these results.

TABLE 3
STUDENTS' SELF-ASSESSED ENVIRONMENTAL KNOWLEDGE

Statements	Pre-Assessment			Post-Assessment		
	M	SD	Interpretation	M	SD	Interpretation
1. How much do you know about climate change?	3.40	0.72	High	4.20	0.61	Very high
2. How much do you know about waste management in Thailand?	3.63	0.61	High	4.30	0.65	Very high
3. How much do you know about disasters in Thailand?	3.40	0.62	High	4.13	0.73	High
4. How much do you know about deforestation problems in Thailand?	3.63	0.67	High	4.07	0.69	High
Total	3.52	0.53	High	4.18	0.59	High

Table 3 details students' self-assessed environmental knowledge. The students ranked their knowledge of waste management (M = 3.63, SD =0.67) and Thailand's deforestation issues (M = 3.63, SD =0.61) as having the highest knowledge based on the pre-assessment. With respect to the post-assessment, at a very high level, students thought they knew about waste management in Thailand (M = 4.30, SD = 0.65).

(c). Students' Environmental Attitudes

TABLE 4
COMPARISON OF STUDENTS' ENVIRONMENTAL ATTITUDES

Assessment	N	Mean	SD	t	Sig.
Pre-assessment	30	4.06	0.61	5.384	.000
Post-assessment	30	4.61	0.51		

Table 4 displays the results of the third section, the students' environmental attitudes. The pre-assessment mean score was 4.06 (SD = 0.61), and the post-assessment mean score was 4.61 (SD = 0.51). After using film circles, the students' environmental attitudes improved significantly. The following table provides further details.

TABLE 5
STUDENTS' ENVIRONMENTAL ATTITUDES

Statements	Pre-Assessment			Post-Assessment		
	M	SD	Interpretation	M	SD	Interpretation
1. I think education is the best way to help change people's behaviours towards the environment.	3.93	0.78	Agree	4.67	0.55	Strongly agree
2. I think environmental awareness should be promoted in my institution.	4.03	0.76	Agree	4.70	0.60	Strongly agree
3. It is important to raise environmental awareness among Thai citizens.	4.23	0.73	Strongly agree	4.73	0.52	Strongly agree
4. It is important to raise ESP students' environmental awareness.	4.00	0.74	Agree	4.47	0.73	Strongly agree
5. It is important to integrate environmental issues into ESP courses.	3.93	0.69	Agree	4.47	0.63	Strongly agree
6. It is important to promote environmental sustainability in communities.	4.10	0.76	Agree	4.70	0.65	Strongly agree
7. The importance of environmental sustainability in communities should be presented in English classrooms.	3.83	0.75	Agree	4.63	0.67	Strongly agree
8. It is important to pay attention to climate change.	4.07	0.64	Agree	4.57	0.63	Strongly agree
9. The importance of tackling climate change should be presented in English classrooms.	3.87	0.78	Agree	4.63	0.67	Strongly agree
10. It is important to promote the use of eco-friendly technology such as solar panels and plant-based packaging materials.	4.03	0.81	Agree	4.50	0.63	Strongly agree
11. The importance of eco-friendly technology should be presented in English classrooms.	3.97	0.81	Agree	4.50	0.63	Strongly agree
12. It is important to conserve natural resources because they are limited.	4.10	0.76	Agree	4.53	0.68	Strongly agree
13. The importance of conserving natural resources should be presented in English classrooms.	4.03	0.72	Agree	4.67	0.61	Strongly agree
14. It is important to reduce harmful emissions to the air, land and water.	4.27	0.78	Strongly agree	4.53	0.63	Strongly agree
15. The importance of reducing harmful emissions to the air, land, and water should be presented in English classrooms.	4.03	0.76	Agree	4.50	0.63	Strongly agree
16. It is important to manage waste properly.	4.30	0.79	Strongly agree	4.60	0.67	Strongly agree
17. The importance of waste management should be presented in English classrooms.	4.07	0.78	Agree	4.73	0.58	Strongly agree
18. It is important to prevent forest fires and deforestation.	4.33	0.92	Strongly agree	4.73	0.58	Strongly agree
19. The importance of forests should be presented in English classrooms.	4.10	0.88	Agree	4.63	0.67	Strongly agree
Total	4.06	0.61	Agree	4.61	0.51	Strongly agree

Table 5 provides a detailed analysis of students' responses to the environmental attitude section. In the pre-assessment, the highest mean scores indicated the importance of proper waste management (M = 4.30, SD = 0.79), preventing forest fires and deforestation (M = 4.33, SD = 0.92), and reducing harmful emissions (M = 4.27, SD = 0.78). The lowest mean score (M = 3.83) was for the belief that English classrooms should teach environmental sustainability in communities.

According to the post-assessment results, the students thought it was important to prevent deforestation and forest fires, as well as to increase awareness of the environment among Thai citizens (M = 4.73, SD = 0.52). Furthermore, they thought that English classes should cover the importance of waste management (M = 4.73, SD = 0.58).

Despite receiving the lowest mean scores for raising ESP students' environmental awareness (M = 4.47, SD = 0.73) and integrating environmental topics into ESP courses (M = 4.47, SD = 0.63), the students ranked these items highly, indicating that they still believed ESP students should raise their environmental awareness and environmental topics can be integrated into ESP classrooms.

Thus, the findings revealed that after employing film circles, the students seemed to have positive attitudes towards conserving the environment and integrating environmental topics into English classes. They also believed that it was important to raise environmental awareness among Thai citizens.

(d). Students' Environmental Behaviours

TABLE 6
COMPARISON OF STUDENTS' ENVIRONMENTAL BEHAVIOURS

Assessment	N	Mean	SD	t	Sig.
Pre-assessment	30	3.60	0.55	6.643	.000
Post-assessment	30	4.29	0.65		

Table 8 presents the results of the last section, the students' environmental behaviours. According to the responses, the pre-assessment mean score was 3.60 (SD = 0.55), and the post-test mean score was 4.29 (SD = 0.65). This indicates that, after utilising film circles, the students believed that their behaviours towards the environment differed statistically significantly.

TABLE 7
STUDENTS' ENVIRONMENTAL BEHAVIOURS

Statements	Pre-Assessment			Post-Assessment		
	M	SD	Interpretation	M	SD	Interpretation
1. I always use solar panels to generate clean energy at home.	2.70	1.02	Neutral	3.83	1.09	Agree
2. I always use public transportation to lower carbon emissions generated by personal vehicles.	3.20	1.16	Neutral	4.10	0.92	Agree
3. I always segregate waste before disposing of it.	3.47	0.90	Agree	4.17	1.02	Agree
4. I always minimize energy consumption by switching off lights when they are not needed.	3.83	0.75	Agree	4.47	0.63	Strongly agree
5. I always refuse to take a plastic bag when buying a few items at a convenience store.	3.40	0.77	Agree	4.17	0.83	Agree
6. I support political leaders who hold positive perspectives towards environmental sustainability.	3.80	0.85	Agree	4.50	0.97	Strongly agree
7. I prefer to work with an organization that cares about the environment.	3.83	0.83	Agree	4.30	0.95	Strongly agree
8. I support goods and services from enterprises that take care of environmental issues in their business operation.	3.77	0.68	Agree	4.50	0.73	Strongly agree
9. I support public and private organizations that have environmental strategies allied with organization goals.	3.97	0.76	Agree	4.33	0.76	Strongly agree
10. I support reforestation programmes that focus on planting native tree species in deforested areas.	4.00	0.91	Agree	4.57	0.73	Strongly agree
Total	3.60	0.55	Agree	4.29	0.65	Strongly agree

Table 7 offers detailed item responses from students on the environmental behaviour questionnaires. The highest pre-assessment mean scores reflected student support for reforestation programs that plant native tree species in deforested areas (M = 4.00, SD = 0.91) and for public and private organizations with environmental strategies (M = 3.97, SD = 0.76). Conversely, the lowest mean scores were for generating renewable energy at home with solar panels (M = 2.70, SD = 1.02) and reducing personal vehicle carbon emissions by using public transit (M = 3.20, SD = 1.16). These two items were at the neutral level.

According to the post-assessment results, similar to the results of the pre-assessment, students believed that they supported reforestation initiatives that focused on planting native tree species in deforested areas (M = 4.57, SD = 0.73). They supported goods and services from enterprises that take care of the environment (M = 4.50, SD = 0.73) and supported environmental politicians (M = 4.50, SD = 0.97). Similar to the pre-assessment, items indicating that the students used solar panels to produce renewable energy at home (M = 3.83, SD = 1.09) and public transportation to lower the carbon emissions from their vehicles (M = 4.10, SD = 0.92) revealed the lowest mean scores.

Thus, based on the findings, it appears that the students believed they had environmentally friendly behaviours.

(B). ESP Students' Attitudes Towards Employing Film Circles in Raising ESP Students' Environmental Awareness

(a). Students Attitudes Towards the Assigned Film Circle Roles in the Classroom

TABLE 8
STUDENTS ATTITUDES TOWARDS THE ASSIGNED FILM CIRCLE ROLES IN THE CLASSROOM

Statements	M	SD	Interpretation
1. I think that being a questioner helped me raise my environmental awareness.	4.43	0.63	Strongly agree
2. I think that being a summarizer helped me raise my environmental awareness.	4.63	0.61	Strongly agree
3. I think that being a word wizard helped me raise my environmental awareness.	4.47	0.68	Strongly agree
4. I think that being a connector helped me raise my environmental awareness.	4.47	0.63	Strongly agree
5. I think that being a film master (who brought interesting parts or quotations from the story to discuss with peers) helped me raise my environmental awareness.	4.47	0.57	Strongly agree
6. I think that being an illustrator helped me raise my environmental awareness.	4.37	0.67	Strongly agree
Total	4.47	0.47	Strongly agree

Table 8 reveals the students had positive attitudes towards the assigned film circle roles in the classroom, including raising environmental awareness (M = 4.47, SD = 0.47).

With regard to items related to the environment, the highest mean score showed that students believed being a summarizer helped them raise their environmental awareness (M = 4.63, SD. = 0.61). With the same mean scores (M = 4.47), three roles that students thought could help them raise their environmental awareness were a word wizard (SD = 0.68), a connector (SD = 0.63), and a film master (SD = 0.57). Being an illustrator received the lowest mean score (M = 4.37, SD = 0.67).

(b). Students' Attitudes Towards the Benefits of Using Film Circles in the Classroom

TABLE 9
STUDENTS ATTITUDES TOWARDS THE BENEFITS OF USING FILM CIRCLES IN THE CLASSROOM

Statements	M	SD	Interpretation
1. I think film circles helped me improve my environmental knowledge.	4.57	0.63	Strongly agree
2. I think film circles helped me gain more positive attitudes towards protecting the environment.	4.57	0.57	Strongly agree
3. I think film circles helped me have more environmentally responsible behaviours, which possibly helped protect the environment and conserve natural resources.	4.53	0.57	Strongly agree
4. I think film circles helped me raise my overall environmental awareness as the activities allowed me to discuss environmental issues with my friends.	4.47	0.63	Strongly agree
Total	4.53	0.51	Strongly agree

Table 9 displays the findings from students' answers to the attitude questionnaires on the advantages of utilizing film circles in the classroom. Overall, the students had positive attitudes towards the use of film circles to raise their environmental awareness (M = 4.53, SD = 0.51).

Regarding items related to the environment, the majority of the students showed positive attitudes towards using film circles to raise their environmental awareness as every item was at the strongly agree level. The students believed that film circles helped them improve their environmental knowledge (M = 4.57, SD = 0.63), gain more positive attitudes towards protecting the environment (M = 4.57, SD = 0.57), have more environmentally responsible behaviours (M = 4.53, SD = 0.57) and raise their overall environmental awareness as the activities allowed them to discuss environmental issues with peers (M = 4.47, SD = 0.63), respectively.

(d). Semi-Structured Interview Results

1. Students' Responses Towards the First Interview Question Focusing on Using Film Circles to Raise Their Environmental Awareness

The following excerpts are from the students' responses to the second semi-structured interview question, "Do you think that employing film circles can raise your environmental awareness? If yes, how? If not, why not?".

> "Yes. For instance, The Lorax addresses the issue of logging. In real life, people burn trees for farming purposes, resulting in smog. It has a negative effect on elderly people with respiratory illnesses. It emits PM2.5 dust. It makes me have allergic reactions to PM2.5, so I have to wear a mask". [S2]

> "Yes, because I can talk about the CSR and the SDGs. I think I'm more aware of the environment". [S7]

While their responses did not appear to address the behavioural domain directly, they did demonstrate a positive attitude towards environmental conservation and an understanding of the causes and consequences of pollution and global warming. The students also showed an understanding of the factors contributing to PM2.5 pollution in Thailand and its negative effects on public health. For instance, a student (S2) observed that tree burning for agricultural needs leads to smog, adversely affecting elderly people with respiratory conditions due to the generation of PM2.5 dust. The student personally experienced allergic reactions to PM2.5, necessitating the use of a mask, which highlighted the student's attitudes towards forest burning and irresponsible logging practices. This seemed to indicate that the student

had negative attitudes towards such actions and had knowledge of the effects of irresponsible logging practices. They also discussed the SDGs and Corporate Social Responsibility (CSR) throughout the group activities. This suggested that they were aware of the environment.

2. Students' Responses Towards the Second Interview Question Focusing on the Benefits and Enjoyment of Using Film Circles to Discuss Environmental Issues

The following excerpts are from the students' responses to the second question "Did you enjoy discussing environmental issues with your friends in film circles? Why?"

> "Yes, I can exchange ideas with my friends. I like being an illustrator. I have the ability to illustrate and articulate my drawings. If I don't know how to speak English, I ask my friends. Then, they will help me". [S2]

> "Overall, I like this activity because it is a way to meet and talk with classmates. I have never worked with some of them before. When it comes to group work, it is a way to build relationships with them". [S8]

During the interviews, the students provided more evidence to support their claims about enjoying film circles. The interviews emphasised the advantages of interactive learning environments. They enjoyed participating in film circles with peers, resulting in supportive discussion engagements.

V. Discussions

Film circles allowed students to watch films and engage in peer discussions. These activities positively impacted students' environmental awareness, as shown by assessments, attitude questionnaires, and semi-structured interviews. The discussions focused on three environmental domains. The students believed that film circles enhanced their environmental knowledge, fostered positive attitudes towards environmental protection, and supported environmentally responsible behaviours.

Firstly, despite the lack of significant improvement in knowledge assessments using true-or-false questions, the students reported personal gains in environmental knowledge through self-assessment questionnaires. The absence of significant enhancement in true-or-false scores can be attributed to the high knowledge of the students, who already had a solid understanding of environmental concepts. However, the self-reported enhancement in knowledge suggests that films fostered a deeper level of understanding, as the students agreed that the films presented relevant environmental topics, facilitating meaningful discussions. The students demonstrated their knowledge of the causes and effects of human actions, as well as their understanding of environmental facts and past occurrences. This suggested that the film selections effectively addressed environmental themes, prompting students to reflect on their relationship with the environment in the film circle discussions. The findings support previous studies indicating that films can serve as a tool for students to explore environmental issues and be aware of the importance of the environment (Topal et al., 2020; Ünlü, 2020). Alyaz et al. (2017) asserted that environmental documentary films have significant potential to enhance environmental awareness among pre-service teachers. Films, as audiovisual resources, represent a fundamental means of engaging with the world and acquiring information and knowledge (Fernandez-Diaz & Sanchez-Giner, 2023).

Moreover, the findings signified that film circles with organized stages facilitated opportunities for the students to acquire knowledge about the environment. In the pre-viewing stage, the students were introduced to the vocabulary and environmental issues presented in the film. This approach facilitated students' foundational understanding of the key concepts outlined in the lesson plan. Subsequent discussions with peers using role sheets enabled them to focus on environmental issues. Throughout the discussions using film circle roles, the students demonstrated their understanding of various environmental topics, contributing to a deeper understanding of the issues. The roles helped students to remain attentive before, during, and after viewing the film (Stephens et al., 2012). Then, the findings implied that film circle stages and roles motivated the students to explore the causes and consequences of environmental degradation within the films and discuss environmental issues with their peers.

Secondly, the students' environmental attitudes improved. During discussions, the students related environmental topics to school and community development settings. Since the students were considered pre-service social studies teachers, enhancing their environmental attitudes is crucial. The pre-service teachers often related their discussions to real-life scenarios, emphasizing the importance of environmental awareness for Thai people. They suggested initiatives such as school garden projects to educate students about different species and supported strict adherence to government directives during the PM2.5 crisis.

Furthermore, regarding the positive environmental attitudes, the students' responses indicated recognition of the significance of environmental education. They believed that education is one of the most effective means of altering individuals' attitudes and actions related to the environment. Moreover, the students held the belief that English classes could incorporate the importance of environmental sustainability in communities. They also believed that raising ESP students' environmental awareness is crucial. Previous studies have confirmed that environmental topics can be integrated into English classrooms (Al-Jarf, 2022; Diachkova et al., 2021; Hussain, 2019; Putri et al., 2024; Raphael & Nandanan, 2024; Saiful, 2023; Setyowati et al., 2022; Yu et al., 2024). Setyowati et al. (2022) suggest that integrating

environmental topics into language classes can enhance language skills while fostering the love and care of nature. As a result, the students demonstrated positive attitudes towards environmental protection. These findings suggest the value of incorporating environmental issues, widely recognized as a critical global concern, into English content and activities, including those in ESP classrooms.

Finally, the results related to behavioural aspects were encouraging, showing an increase in environmentally friendly behaviours among students. Film circles appear to inspire action on environmental protection by empowering students to critically analyse film content and cultivate personal connections with environmental issues. Peer-led discussions on environmental concerns motivate students to take responsibility and support each other in adopting eco-friendly practices. Peer-to-peer conversation can serve as an effective tool for fostering pro-environmental behaviour (Hurst et al., 2023). The ESP students in this study discussed environmental issues. During discussions, it was frequently noted that students would negotiate the meanings of specific phrases or behaviours displayed by characters in a TV series episode (Brazenas, 2019). Peer discussions could then serve as a fruitful environment for generating innovative solutions and developing strategies to tackle environmental issues within their local communities.

To support all environmental aspects, English classes that prioritize environmental awareness and guidance can empower students to actively contribute to the protection of the environment and prevent future degradation (Hussain, 2019). Universities must contribute to the public's greater awareness of environmental issues and offer guidance to support individuals in making educated decisions, acting in an ecologically responsible behaviour, and making rational purchases (Mkumbachi et al., 2020). Given that harmful human activities have negatively impacted environmental sustainability, natural balance, and ecosystems, which are essential for human needs and welfare (Abbas et al., 2024), people must enhance their pro-environmental behaviours to protect the environment.

VI. Conclusions and Recommendations

Integrating film circles into English for Specific Purposes (ESP) classrooms appears to have significant potential for enhancing students' environmental awareness. Through film circles, the students not only watch films but also engage in discussions with their peers, leading to a deeper understanding of environmental issues. Results from the environmental awareness assessment revealed positive outcomes across three environmental domains: knowledge, attitudes, and behaviours. The students reported personal gains in environmental knowledge through self-assessment questionnaires, indicating a deeper level of understanding facilitated by film discussions. The students' attitudes towards environmental protection were positively influenced by film circle activities, with discussions often extending to real-life scenarios in school and community settings. The students also believed they improved their environmental behaviours. The findings of the attitude questionnaire and semi-structured interviews underscored the importance of incorporating environmental themes into language education including ESP classrooms. Moreover, film circles stimulated action on environmental protection, empowering students to critically analyse film content and discuss potential solutions to environmental issues. Peer-led discussions not only facilitated environmental knowledge exchange but also inspired environmentally friendly behaviours among the students. The findings also suggest that films can be integrated into English courses.

Further research could explore other learning aspects such as listening, speaking, reading, and writing skills, as well as vocabulary and grammar, through the use of film circles. Additionally, researchers might identify factors that influence students' performance during group discussions. This study has limitations. Since students indicated that film circles are time-consuming during the viewing stage, it is recommended that researchers focus on key parts of the film instead of viewing the entire film. Additionally, TV series, cartoons, or anime can be used. The name of the activity might differ from "film circles" to terms like "movie circles," "media circles," or "cartoon circles". It's important to note that this activity is an adaptation of literature circles.

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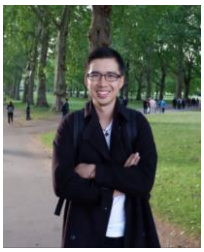

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