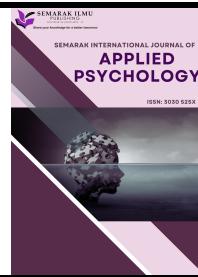




## Semarak International Journal of Applied Psychology

Journal homepage:  
<https://semarakilmu.my/index.php/sijap/index>  
ISSN: 3030-525X



# Circle Time: Boosting Social and Emotional Competence in University Students

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### ARTICLE INFO

**Article history:**

Received 30 November 2025

Received in revised form 15 November 2025

Accepted 28 January 2026

Available online 30 January 2026

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### ABSTRACT

This study investigates the knowledge, perceptions, and socio-emotional outcomes associated with the implementation of Circle Time among university students in Malaysia. Although Circle Time is traditionally used in school settings, its application in higher education remains underexplored. Using a cross-sectional quantitative design, data were collected from 180 students through an online questionnaire assessing knowledge, perception, social outcomes, and emotional outcomes related to Circle Time. Reliability analysis showed acceptable to excellent internal consistency across all constructs, confirming the suitability of the instrument. Descriptive results indicated high levels of perceived effectiveness, particularly in social and emotional domains. Pearson correlation analysis revealed strong, positive, and statistically significant relationships between students' perceptions and both social ( $r = .741$ ,  $p = .01$ ) and emotional outcomes ( $r = .766$ ,  $p = .01$ ), as well as between social and emotional outcomes ( $r = .771$ ,  $p = .01$ ). These findings suggest that positive perceptions of Circle Time contribute to enhanced perceived socio-emotional outcomes, highlighting its potential as a supportive intervention for university students. The study addresses a research gap by providing preliminary, perception-based evidence on the potential role of Circle Time in supporting student well-being and interpersonal development in higher education.

**Keywords:**

Circle time; social-emotional development; university students; perception; higher education; emotional well-being; social skills

## 1. Introduction

### 1.1 Problem Statement

University students today face increasingly complex social and emotional challenges that affect their well-being, academic performance, and interpersonal functioning. The transition to university marks a critical developmental stage where young adults must navigate heightened academic demands, new social environments, and greater personal independence. These pressures often lead to elevated stress levels, loneliness, emotional instability, communication difficulties, and reduced sense of belonging. As these psychosocial issues continue to rise, higher education institutions are

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urged to implement effective interventions that can strengthen students' emotional resilience, interpersonal skills, and overall mental preparedness. Despite the recognised importance of social and emotional competencies during this crucial period, structured approaches to nurturing such skills remain limited in many universities.

Circle Time, traditionally employed in early childhood and primary education, is a structured group-discussion method that emphasises equality, respect, openness, and emotional expression. Its non-hierarchical format allows participants to share personal experiences, reflect on emotions, and engage in meaningful dialogue within a safe and supportive environment. Research has long established Circle Time as an effective tool for improving communication, emotional regulation, empathy, and peer relationships among younger learners. However, its potential application within higher education remains significantly underexplored. Although university students differ developmentally from children, they similarly require guided spaces that foster emotional awareness, mutual support, and healthy social interaction—elements that Circle Time is designed to cultivate.

A key problem lies in the lack of empirical evidence examining Circle Time's relevance, suitability, and effectiveness for university students. Most existing studies focus on primary and secondary education contexts, leaving a substantial gap in understanding how Circle Time may function within older, more autonomous learner groups. University students often experience emotional fatigue, academic pressure, interpersonal conflict, and weakened social connectedness, particularly in environments dominated by digital communication and limited face-to-face interaction. These conditions heighten the need for interventions that promote authentic dialogue and emotional reflection. Yet the absence of research examining Circle Time in higher education makes it unclear whether this method can adequately address the unique developmental needs and challenges faced by university students.

Another contributing issue is the uncertainty surrounding students' perceptions of Circle Time. Because the method is commonly associated with school-age children, university students may hold misconceptions or view it as childish, irrelevant, or unaligned with adult learning environments. Such perceptions may influence their willingness to participate openly and meaningfully. Engagement is crucial for the success of psychosocial interventions: students who perceive an activity as valuable are more likely to invest effort and benefit from it, whereas negative perceptions can hinder emotional openness and reduce potential outcomes. Therefore, understanding how university students perceive Circle Time is an essential component in evaluating its effectiveness.

In addressing these gaps, this study extends socio-emotional learning research at the tertiary level by examining Circle Time as a distinct, principle-based pedagogical approach rather than a general socio-emotional learning programme. Unlike prior studies that focus primarily on outcome effectiveness, the present research foregrounds students' perceptions and understanding of Circle Time as a key lens for examining perceived socio-emotional outcomes. Additionally, the study contributes context-specific evidence from Malaysian higher education, where empirical research on structured reflective group practices remains limited.

In response to these concerns, recent studies suggest that structured socio-emotional programs can help address university students' psychosocial challenges. Research from social and educational fields shows that well-planned group activities improve emotional control, communication skills, and students' overall participation in learning settings [15]. Studies also emphasize that reliable and clear tools are important to accurately measure students' social-emotional growth and their views on such programs [14].

Given these gaps, this study seeks to explore the potential role of Circle Time in supporting university students' social and emotional development by assessing students' knowledge and

understanding of the approach, examining perceived socio-emotional outcomes, and analysing the associations between perceptions and outcomes. In doing so, the study extends existing socio-emotional learning research at the tertiary level by examining Circle Time as a distinct, principle-based pedagogical approach rather than a general SEL programme. By foregrounding students' perceptions as a key mechanism influencing perceived outcomes and providing context-specific evidence from Malaysian higher education, the study aims to offer insights into the perceived appropriateness, potential benefits, and feasibility of Circle Time within university settings.

### **1.2 Literature Review**

Social and emotional development has become a growing area of concern within higher education as universities report increasing instances of student stress, anxiety, interpersonal conflict, and emotional dysregulation. The demands of university life require students to possess strong emotional resilience, effective communication skills, and the ability to build healthy relationships. Scholars argue that social-emotional competencies play a significant role in students' academic performance, mental health, and overall satisfaction with university experiences. This has led to increased interest in interventions that can promote emotional balance, interpersonal connectedness, and psychological well-being. One such intervention is Circle Time, a structured group activity traditionally used in school settings to encourage open communication, emotional expression, and respectful dialogue.

Circle Time is grounded in principles of equality and shared responsibility. Participants sit in a circle to eliminate hierarchy, promote inclusivity, and create a safe environment for open communication. In primary and secondary education, Circle Time has been widely recognised for its ability to improve behavioural outcomes, enhance emotional literacy, and build stronger peer relationships. Its emphasis on respectful listening, turn-taking, and expressing feelings makes it a powerful tool for shaping social and emotional competencies. Research in early education consistently demonstrates positive outcomes such as increased empathy, reduced behavioural issues, improved cooperation, and stronger emotional self-awareness.

However, although Circle Time is well-established in school settings, its application within higher education is considerably less explored. University students face different developmental challenges—such as transitioning to adulthood, managing independence, and navigating complex social situations—which requires interventions that support emotional regulation, stress management, and interpersonal skills. Scholars emphasise that young adults often struggle with emotional expression due to societal expectations of maturity and autonomy, making structured discussion spaces particularly valuable. This gap in implementation highlights the potential relevance of Circle Time for older learners who may benefit from reflective dialogue and peer support.

Recent studies between 2021 and 2025 have explored the broader use of Circle Time beyond childhood education, offering insights into its potential application for adult learners. These studies indicate that Circle Time is adaptable and effective across various age groups because its core elements—open communication, emotional reflection, and shared experience—are universally beneficial. Jenkins and Howard [2] reported that Circle Time fosters meaningful interpersonal communication among older students by promoting clarity of self-expression and respect for diverse perspectives. This is especially valuable in university environments where students often interact across different cultural and social backgrounds.

Maher *et al.*, [5] found that Circle Time helps reduce psychosocial stress among university students by providing a structured space for sharing academic and personal challenges. Their research highlights that peer-sharing activities can alleviate feelings of emotional isolation and enhance coping strategies. Nguyen and Cartwright [7] further demonstrated that Circle Time

improves empathy, cooperation, and conflict resolution skills among university-aged participants. These findings suggest that Circle Time supports both emotional and social development, which are essential for forming healthy peer relationships and effective collaboration.

Furthermore, recent research suggests that Circle Time may play a unique role in enhancing group cohesion and fostering a climate of psychological safety—an essential component for effective learning. Psychological safety refers to individuals' perception that they can speak openly without fear of judgment or rejection. Morrison *et al.*, [12] demonstrated that interventions promoting emotional openness, such as Circle Time, contribute to stronger classroom bonds and reduce feelings of alienation. These findings are especially relevant for first-year university students, who commonly experience adjustment difficulties and social fragmentation as they transition into a new environment.

More recent studies continue to support the relevance of Circle Time in higher education contexts. Lopez and Ibrahim [4] found that Circle Time strengthens students' sense of belonging and community connection. Their study shows that structured reflection and group-sharing activities help students feel more integrated within academic settings, promoting motivation and engagement. Patel's [8] longitudinal research revealed that Circle Time contributes to long-term improvements in emotional stability and resilience. The study attributes these outcomes to consistent emotional regulation practice, collaborative problem-solving, and emotional support from peers.

In Malaysia, Rahman and Yusof [9] identified Circle Time as a culturally adaptable and inclusive method for fostering emotional safety within diverse university populations. They emphasised that its structured format aligns with the nation's holistic educational philosophy. Meanwhile Kwan and Thomas [3] showed that Circle Time remains effective even in digital or hybrid learning environments, demonstrating its flexibility during and after the COVID-19 pandemic. The most recent research by Sato [10] highlighted the crucial role of facilitator skills, suggesting that competent facilitators significantly enhance the quality of reflections, emotional openness, and psychological safety.

Collectively, the literature demonstrates that Circle Time holds significant potential as a social-emotional intervention for university students. Its impact on emotional regulation, communication, empathy, and social connectedness aligns closely with the developmental needs of young adults. However, the scarcity of research specifically focused on higher education settings underscores the need for further empirical investigation.

### 1.3 Objectives

Based on the challenges outlined and the limited research on Circle Time in university settings, this study is guided by three primary objectives. First, the study aims to assess students' level of knowledge and understanding of the concept and purpose of Circle Time, particularly its traditional role in school-based environments. Understanding students' initial awareness is essential because familiarity and comprehension influence openness, participation, and emotional engagement.

Second, the study seeks to determine the extent to which Circle Time can enhance university students' social and emotional skills. This includes examining improvements in communication, cooperation, empathy, emotional regulation, and interpersonal awareness. Given that these competencies are vital for academic success and personal well-being, the study aims to evaluate whether Circle Time offers measurable benefits.

Finally, the study aims to analyse the relationship between students' perceptions of Circle Time and their perceived social and emotional outcomes. Students' perceptions are considered an important factor in shaping engagement with psychosocial activities. By examining this relationship, the study seeks to explore whether more positive student attitudes are associated with higher

perceived outcomes, thereby offering insights into how Circle Time may be introduced, structured, and facilitated within higher education.

## **2. Methodology**

### *2.1 Research Design*

This study employed a cross-sectional survey design utilizing a quantitative approach. The purpose was to investigate awareness and prior experience with Circle Time, the perceived effectiveness of Circle Time on the social and emotional outcomes of students in Malaysian higher education and to examine the correlation between these outcomes and students' perception of Circle Time. A questionnaire was administered at a single point in time to gather data on the key variables.

### *2.2 Research Sampling and Setting*

A convenience sampling method was used to recruit participants from various higher education institutions in Malaysia. The sample consisted of 180 students.

### *2.3 Research Instrument*

Google Forms was selected as the most appropriate method for gathering data. A self-administered online questionnaire developed using Google Forms was employed as the primary survey instrument for this study. The use of Google Forms enabled efficient distribution, accessibility, and collection of responses from participants across various locations. The questionnaire consisted of structured items designed to measure students' perceptions and the socio-emotional outcomes associated with Circle Time.

All quantitative data collected through the online survey were exported and analysed using the Statistical Product and Service Solution (SPSS). Descriptive statistics (such as frequencies, percentages, means, and standard deviations) were used to summarise respondents' demographic profiles and key variables. Inferential analyses were also conducted to examine the relationships and differences between variables in line with the study's objectives.

#### *2.3.1 Questionnaire development*

This study defines "Circle Time" as a structured, principle-based group discussion characterized by a circular seating arrangement, a specific sequence of activities, and the "right to pass" rule, all aimed at creating a safe environment for personal sharing. Given its potential novelty, respondents were instructed to answer the survey based solely on this definition of group interaction. A self-administered online questionnaire, titled "Circle Time Survey," was developed in Bahasa Malaysia to ensure clarity and comprehension for the respondents. The questionnaire was divided into five sections:

**Section A:** Demographics. This section collected information on gender, education level, and prior knowledge and experience with Circle Time.

**Section B:** Perception of Circle Time. This section contained 8 items measuring respondents' understanding and views on Circle Time (e.g., "I understand the purpose of Circle Time at university," "Circle Time is a safe and non-judgmental space"). Items were measured on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). One negatively worded item ("Circle Time is only for primary school students") was reverse-scored before analysis.

**Section C: Social Outcomes.** This section contained 7 items assessing perceived improvements in social skills (e.g., "helps me communicate more confidently," "increases teamwork skills"). Items were measured on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

**Section D: Emotional Outcomes.** This section contained 6 items assessing perceived improvements in emotional well-being (e.g., "I can better identify my own emotions," "I feel more positive after Circle Time"). Items were measured on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

**Section E: Overall Perception and Support.** This section contained 6 items gauging overall support for Circle Time implementation (e.g., "Circle Time is a beneficial activity," "It should be held regularly"). Items were measured on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

### 2.3.2 Reliability

The reliability of the questionnaire was measured by calculating the Cronbach alpha's value using the Statistical Product and Service Solution (SPSS). Cronbach Alpha is used to analyse the extent to which all items in a scale measure the same underlying construct. NurHafizah Ahmad *et al.*, [1] stated that a Cronbach's alpha coefficient of 0.70 or higher is generally considered as good to acceptable reliability. Meanwhile, a Cronbach's alpha coefficient below 0.70 might indicate poor reliability due to low correlation between the items.

**Table 1**  
Cronbach's alpha reliability level

| Cronbach's alpha Range | Reliability level |
|------------------------|-------------------|
| > 0.90                 | Excellent         |
| 0.80 - 0.89            | Good              |
| 0.70 - 0.79            | Acceptable        |
| 0.60 - 0.69            | Questionable      |
| < 0.69                 | Poor              |

### 2.3.3 Instrument validation

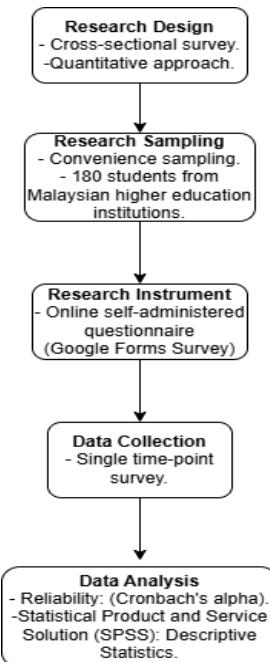
The questionnaire consisted of self-developed items informed by existing literature on Circle Time and socio-emotional learning. Relevant constructs and item content were identified through a review of prior empirical studies, and the wording of items was adapted to ensure relevance and clarity for a university student population. Internal consistency reliability was examined for each construct to assess measurement coherence. As the instrument was exploratory in nature, formal construct validation procedures were not conducted.

### 2.4 Data Collection Procedure

Data was collected over a period of several days using an online form created with Google Forms. The survey link was distributed through university student forums, social media groups, and personal networks. A cover letter accompanied the survey, explaining the research objectives, assuring respondents of anonymity and confidentiality, and obtaining informed consent. Participation was voluntary, and no incentives were offered.

## 2.5 Data Analysis

Data analysis was performed using Statistical Product and Service Solution (SPSS). Descriptive statistics were used to summarize the demographic data and scale responses. The reliability of the scales was assessed using Cronbach's alpha. To test the study hypotheses, Pearson's correlation analysis and independent samples t-tests were conducted. The alpha level for determining statistical significance was set a priori at .05.



**Fig. 1.** Methodological framework

This study employed a cross-sectional survey design using a quantitative approach to obtain data at a single time point. A convenience sampling method was applied, involving 180 students from Malaysian higher education institutions. Data were collected through an online self-administered questionnaire developed using Google Forms. The reliability of the instrument was assessed using Cronbach's alpha, and the data were analysed using the Statistical Product and Service Solution (SPSS) to generate descriptive statistics that summarised the key variables of the study.

## 3. Result and Discussion

### 3.1 Demographic Profile

**Table 2**  
Demographic distribution of respondents

| Category        | Group                           | Frequency | Percentage (%) |
|-----------------|---------------------------------|-----------|----------------|
| Gender          | Male                            | 71        | 39.4           |
|                 | Female                          | 109       | 60.6           |
| Education Level | Bachelor's Degree               | 57        | 31.7           |
|                 | STPM/ STAM/ Foundation/ Diploma | 123       | 68.3           |

Table 2 presents the demographic distribution of the respondents including their gender and educational level. In this study, a total of 180 university students were selected as respondents using a simple sampling technique. Table 1 shows the demographic distribution under two categories which is gender and educational level. Based on a demographic questionnaire, the majority of respondents were aged between 20-24 years (60%), followed by 25-29 years (25%) and the remaining were over 30 years (15%). According to the results, majority of the participants were female (n = 109; 60.6%) and male students accounted for 39.4% (n = 71). For educational background most of the respondents were STPM/STAM/Foundation/Diploma students (n=123,68.3%) while the remaining were currently pursuing a Bachelor's Degree (n=57,31.7%).

This shows that the study sample is predominantly female, which is also consistent with the gender composition commonly observed in university enrolment trends. The findings indicate that the sample includes a higher number of students who are either transitioning into or recently introduced to the university learning environment, which may influence their engagement and participation in Circle Time activities. Most respondents were from pre-university, who are still adapting to the university context that may influence their exposure and engagement with activities related to social-emotional learning [13].

### 3.2 Students' Perceptions of Circle Time

**Table 3**

Students' evaluation of circle time implementation and socio-emotional outcomes

|  | Strongly Disagree (%) | Disagree (%) | Neutral (%) | Agree (%) | Strongly Agree (%) |
|--|-----------------------|--------------|-------------|-----------|--------------------|
| <b>KNOWLEDGE</b>   |                       |              |             |           |                    |
| <i>I understand the purpose of implementing Circle Time at the university.</i>   | 1.7                   | 3.3          | 21.1        | 31.1      | 42.8               |
| <i>Circle Time is only suitable for primary school students.</i>   | 43.9                  | 20           | 26.1        | 6.7       | 3.3                |
| <i>One of the expected outcomes of Circle Time is the improvement of emotional understanding and communication skills.</i> | 0.6                   | 2.2          | 10.6        | 24.4      | 62.2               |
| <i>One of the participants' roles in Circle Time is to take turns speaking and respect others' turns.</i>                  | 0                     | 2.2          | 16.1        | 21.7      | 60                 |
| <i>Circle Time provides me with the opportunity to express my views and feelings openly.</i>                               | 1.1                   | 5            | 22.2        | 32.2      | 39.4               |
| <i>I feel that Circle Time is a safe and non-judgmental space.</i>   | 2.2                   | 6.7          | 26.7        | 31.7      | 32.8               |
| <i>I understand the facilitator's role in helping the Circle Time session run smoothly.</i>                                | 0.6                   | 2.2          | 18.9        | 34.4      | 43.9               |
| <b>PERCEPTION</b>  |                       |              |             |           |                    |
| <i>Circle Time is a beneficial activity for students.</i>  | 45.6                  | 0            | 0           | 0         | 54.4               |
| <i>Circle Time is suitable to be conducted regularly at the university.</i>  | 43.9                  | 20           | 26.1        | 6.7       | 3.3                |

|   |     |     |      |      |      |
|---|-----|-----|------|------|------|
| <i>I support the expansion of Circle Time sessions at the university.</i>                   | 0.6 | 2.2 | 10.6 | 24.4 | 62.2 |
| <i>Circle Time helps students become more responsible towards themselves and others.</i>    | 0   | 0.6 | 13.3 | 30.6 | 55.6 |
| <i>Circle Time helps me reflect on my learning.</i>   | 1.7 | 3.3 | 21.1 | 31.1 | 42.8 |
| <i>Circle Time helps me apply what I have learned to real-life situations.</i>              | 1.1 | 5   | 22.2 | 32.2 | 39.4 |
| <b>SOCIAL</b>   |     |     |      |      |      |
| <i>Circle Time helps me communicate more confidently in front of peers.</i>                 | 0.6 | 2.8 | 16.7 | 39.4 | 40.6 |
| <i>I have become more confident in sharing my opinions during group discussions.</i>        | 0   | 3.3 | 15.6 | 40.6 | 40.6 |
| <i>I am better able to acknowledge and respect the opinions of my peers.</i>                | 0   | 0.6 | 13.3 | 30.6 | 55.6 |
| <i>Circle Time enhances collaborative skills within a group.</i>                            | 0   | 0.6 | 11.1 | 33.3 | 55   |
| <i>I actively listen to others when they speak in Circle Time sessions.</i>                 | 0   | 1.1 | 12.2 | 32.2 | 54.4 |
| <i>Circle Time helps me interact better with my peers.</i>                                  | 1.2 | 8.3 | 15   | 33.3 | 42.2 |
| <i>I find it easier to make friends with classmates after participating in Circle Time.</i> | 0.6 | 1.1 | 15.6 | 31.7 | 51.1 |
| <b>EMOTIONAL</b>  |     |     |      |      |      |
| <i>I am able to identify and understand my own emotions better.</i>                         | 1.7 | 1.7 | 21.7 | 35.6 | 39.4 |
| <i>Circle Time helps me manage stress and emotions more calmly.</i>                         | 2.2 | 3.3 | 21.1 | 42.8 | 30.6 |
| <i>I am more aware of the feelings and needs of my peers.</i>                               | 0   | 1.1 | 18.9 | 41.7 | 38.3 |
| <i>I feel more positive after participating in Circle Time sessions.</i>                    | 1.1 | 2.2 | 21.7 | 38.3 | 36.7 |
| <i>I feel recognized and listened to during Circle Time.</i>                                | 0.6 | 1.7 | 19.4 | 38.3 | 40   |
| <i>I receive emotional support from peers during Circle Time.</i>                           | 1.1 | 1.1 | 18.3 | 39.4 | 40   |

According to Table 3, students showed that they understand the purpose and importance of Circle Time at the university. Most students agreed that Circle Time is helpful (87.8%). They said it should be held regularly (79.5%). Many of them think Circle Time can be used more widely at the university (85.6%). Students also said that Circle Time helps them take responsibility and think about their learning. More than 80% agreed on this.

Students have a positive view of how Circle Time improves social and communication skills. Most of them said, Circle Time helped them speak more confidently in front of others (80%). They agreed that Circle Time gave them courage to share their opinions (81%) and helped them to be a good listener and respect others. Other than that, 88.3% of the students agreed Circle Time can improve teamwork because about 86.6% students agree that they will pay more attention when others speak. They also agreed that Circle Time helped them to have better communication (75.5%) and make strong friendships (82.8%) after the activities. Students said Circle Time may help them to improve their emotions. Most of them about 75% agree that Circle Time would understand their feelings better and lower their stress level. About 80% agreed that they feel more caring towards others. They also agreed students would feel more positive after Circle Time activities about (75%). Many of the students agreed that they get emotional support from their peers (79.4%).

Most students have a positive opinion of Circle Time because about 87.8% agree it might be helpful for university students. Students agreed that Circle Time should be held more often about 79.5% and they support if the activities are organized around university. About 86.7% agreed that Circle Time makes them more responsible for themselves and others. University students agreed that Circle Time helps them to think more about what they have learned. About 82.2% think that the activities help them use learning in real life. The results indicate that students understand the purpose and importance of Circle Time and recognize its usefulness in higher education. Circle Time not only helps students take responsibility and reflect on their learning but also enhances their social and communication skills by building confidence, teamwork, and respectful interaction with others. Furthermore, it supports students' emotional development by promoting emotional expression, empathy, and providing peer support, which helps them feel more positive and connected. Overall, students perceive Circle Time as beneficial for both their learning and personal growth, demonstrating its value as an effective activity within the university setting.

### *3.3 Reliability Analysis of the Instrument Measuring Students' Knowledge, Social, Emotional and Attitude*

According to Table 4, the result of the reliability test showed that all constructed instruments had internal consistency ranging from acceptable to excellent level. The knowledge construct demonstrated acceptable reliability with a Cronbach's Alpha of ( $\alpha = 0.706$ ) indicating consistent measurement of understanding related to Circle Time. Meanwhile, the study found excellent internal consistency for the construct of social ( $\alpha=0.926$ ), emotional ( $\alpha=0.937$ ) and attitude towards Circle Time ( $\alpha=0.949$ ). Besides, the attitude scale has an excellent reliability scale ( $\alpha=0.949$ ), that indicates a strong consistency in items reflecting beliefs, acceptance and impressions of Circle Time practices.

This study assessed the reliability of the questionnaire using Cronbach's Alpha to confirm the consistency and stability of each measurement scale - knowledge, emotional, social and attitude related to Circle Time. Researchers commonly use Cronbach's Alpha ( $\alpha$ ) as a reliable coefficient to assess the consistency of Likert-scale instruments in social and educational studies [15]. The previous study instrument reliability is important to ensure that the study results are trustworthy [14]. The items related to Circle Time knowledge are consistent and respondents provided similar responses. This aligns with the findings stated that a well-structured instrument helps to ensure accurate measurement of students' knowledge [14].

This indicates that the items within each scale are highly connected and accurately assess their respective measurements. The emotional scale has excellent reliability indicating that its items accurately measure students' emotional development including self-awareness, emotional

regulation and empathy. Instruments that assess students' emotional abilities must demonstrate strong internal consistency to reliably measure affective [16].

The social dimension demonstrates strong reliability showing a major correlation among items related to cooperation, communication and social interaction during Circle Time. The accurate assessment techniques are required to assess social functioning efficiently in higher education settings [17]. Positive attitudes closely stem from students' active participation in social-emotional learning activities [18]. This result indicates that the questionnaire items are appropriate and stable in assessing students' perception and effectiveness of Circle Time. The reliability values were reported based on standardized items to ensure consistency in the measurement across all constructs.

**Table 4**  
Cronbach's Alpha reliability coefficients based on standardized items

| Items                        | Number of Items | Cronbach's Alpha (Standardized Items) | Interpretation         |
|------------------------------|-----------------|---------------------------------------|------------------------|
| Knowledge                    | 7               | 0.706                                 | Acceptable reliability |
| Social                       | 7               | 0.926                                 | Excellent Reliability  |
| Emotional                    | 6               | 0.937                                 | Excellent Reliability  |
| Attitude towards Circle Time | 6               | 0.949                                 | Excellent Reliability  |

### *3.4 Descriptive Statistics of Students' Knowledge, Social, Emotional and Attitude in Relation to the Implementation of Circle Time*

Table 5 presents the descriptive statistics presents the descriptive statistics for the knowledge, social, attitude of perception and emotional constructs including the mean, median, mode, standard deviation and overall interpretation of perceived effectiveness. According to the table, the results show that the mean scores for knowledge, social, emotional and attitude toward Circle Time are all above 3.50. These results indicate that Circle Time is widely considered to be effective among university students. The knowledge construct had the lowest mean at ( $M = 3.87$ ,  $SD = 0.57$ ) while the social constructs showed the highest mean score ( $M = 4.42$ ,  $SD = 0.68$ ). Meanwhile, the emotional construct shows a high mean ( $M = 4.10$ ,  $SD = 0.75$ ) and the attitude towards Circle Time also has a high mean ( $M = 4.32$ ,  $SD = 0.73$ ).

These results indicate that Circle Time is widely considered to be effective among university students. The knowledge construct had the lowest mean that falls within the high-effectiveness group in which students comprehend the goal and concepts of Circle Time adequately. The social constructs showed the highest mean score, the students strongly believe that Circle Time helps to improve social interaction, communication, cooperation and peer relationships among them. The emotion shows that the students believe Circle Time might be helpful to improve their emotional regulation, self-awareness and psychological well-being. A high mean score for attitude suggests that students show strong enthusiasm for participating in Circle Time activities. All constructs have negative skewness scores, indicating that responses are slanted toward more agreement. This indicates students' overwhelming positive perceptions of Circle Time's effectiveness. The results clearly indicate that Circle Time plays a major role in enhancing students' social development, emotional well-being and appreciation for comprehensive group activities within the university environment.

**Table 5**

Descriptive statistics for knowledge, social, attitude and emotional constructs

| Construct | N   | Mean(M) | Median | Mode | Std. Deviation (SD) | Interpretation |
|-----------|-----|---------|--------|------|---------------------|----------------|
| Knowledge | 180 | 3.8706  | 3.8571 | 3.86 | 0.56847             | High           |
| Social    | 180 | 4.4246  | 4.5714 | 5.14 | 0.68144             | High           |
| Attitude  | 180 | 4.3176  | 4.3333 | 5.00 | 0.72908             | High           |
| Emotional | 180 | 4.1028  | 4.0000 | 5.00 | 0.74936             | High           |

Note: Mean: > 3.5 = High perceived emotional/ social effectiveness, Mean: 2.5 - 3.4 = Moderate effectiveness, Mean: < 2.5 = Low effectiveness

### 3.5 Perceived Effectiveness of Circle Time on Socio-Emotional Outcomes

Table 5 revealed that university students generally perceive Circle Time as effective in enhancing their social and emotional outcomes. Descriptive statistics for all constructs indicated positive responses, with mean scores as follows: Knowledge (M = 3.8, Median = 4.0, Mode = 4.0), Social (M = 3.9, Median = 4.1, Mode = 4.0), Emotional (M = 3.5, Median = 3.9, Mode = 4.0) and Attitude (M = 4.0, Median = 4.2, Mode = 4.0). These results suggest that students have a good understanding of the purpose of Circle Time and demonstrate favourable socio-emotional outcomes through their participation.

The reliability test has revealed that the instrument employed in this research is reliable, with an internal consistency was good for all constructs as indicated by both Cronbach's alpha values: Knowledge ( $\alpha = 0.706$ ), Social ( $\alpha = 0.926$ ), Emotional ( $\alpha = 0.937$ ) and Attitude ( $\alpha = 0.949$ ). This supports the validity of the newly developed questionnaire with respect to students' perceptions and SE outcomes [15].

In general, such results are in keeping with other research that confidently shows that the systematised social emotional interventions like Circle Time can bring a significant improvement of students' classmates' relationship, emotional regulation and emotionally positive attitudes towards others at the high education setting [15]. This then supports the idea that Circle Time is considered by university students to be a beneficial tool in supporting emotional development, which was the aim of measuring knowledge, social competence attitude and awareness within this research.

### 3.6 Pearson Correlation Analysis

One of the main objectives of this study was to investigate the correlation between student's perception towards circle time and socio-emotional outcome. Thus, to calculate the correlation between these variables, Pearson correlation was used to measure the strength and direction of the linear relationship. According to Table 5, the results revealed a strong, positive and statistically significant correlation between student's perception towards circle time and social and emotional outcome which is  $r = +.741, +.766$  with  $p = .01$ . Additionally, with  $r = .771$ ,  $n = 180$  and  $p = 0.01$  ( $p < .05$ ), it could be concluded that the correlation between social score and emotional score are positively strong and statistically significant.

The positive correlation between the student's perception towards circle time and social – emotional outcome supports this study's hypothesis that the student's perception towards circle time plays a crucial role on the social outcome. When a learning activity is emotionally captivating, students tend to appreciate the type of activity and its content more [6]. Hence, if a student perceives circle time activity as a safe structured environment, they are more likely to engage in social exercises

and participate in vulnerable conversation, thereby enhancing their overall social skills. Moreover, when students perceived circle time as a safe and structured environment and the students believe that they will not be judged unfairly by their peers, they are more likely to feel a sense of security and are not afraid to voice out the problems that they are currently facing. This is supported by the results obtained where the correlation between student's perception towards circle time and emotional outcome is positively strong and statistically significant. The correlation between social outcome and emotional outcome powerfully illustrates that social and emotional development occur simultaneously and are closely intertwined with each other. Social development is a process where the child learns how to interact with other people around them and also refers that social development involves how children tend to develop friendship with their peers [11]. Improvement in social development, such as, being able to listen and respect the views of others, simultaneously facilitate the emotional development of a person, as for example, feeling empathy towards others and also learning to manage one's own emotion. Hence, it can be concluded that the social outcomes tend to correlate with the student's emotional outcome.

**Table 6**  
Pearson correlation coefficient analysis

| Variables  | Correlation coefficient, <i>r</i> | <i>p</i> -value |
|--|-----------------------------------|-----------------|
| Student's perception towards Circle Time - Social Outcome    | +0.741                            | 0.01            |
| Student's perception towards Circle Time - Emotional Outcome | +0.766                            | 0.01            |
| Social Outcome - Emotional Outcome                           | +0.771                            | 0.01            |

Note: *r*-value shows strong positive correlation; significant at *p*-value <0.05

#### 4. Conclusion

There are several limitations that should be acknowledged when interpreting the findings of this study. First of all, the research employed a cross-sectional survey design that limits the ability to examine the changes in socio-emotional outcomes over time. Hence, it is recommended for future studies to conduct a longitudinal and experiment to strengthen causal inference. All constructs were measured using self-report questionnaires which may introduce social desirability bias and common method variance. Although self-report measures are appropriate for capturing subjective socio-emotional experiences, future research should incorporate multiple data sources, such as behavioural observations, facilitator or peer assessments to validate self-reported outcomes. Besides, this study focused on student's perceived socio-emotional outcomes rather than objectively measured behavioural characteristics. As such, the findings reflect on the perceived benefits rather than demonstrated improvement in social or emotional functioning. Thus, further studies may benefit from integrating mixed method approaches to provide deeper insight into students' lived experiences during Circle Time sessions. Additionally, variations in how Circle Time was implemented across different contexts, facilitators, and student groups were not examined. Differences in facilitation style, session frequency, group size, and institutional culture may influence participants' engagement and outcomes. Future research should systematically explore implementation fidelity and facilitator-related factors to better understand how these variables shape the effectiveness of Circle Time in higher education.

Despite these limitations, the present study offers valuable preliminary insights into students' perceptions of Circle Time and its potential role in supporting socio-emotional learning at the university level. Findings indicate that students generally hold positive perceptions of Circle Time and view it as a supportive approach for enhancing social interaction, emotional awareness, and peer support. Significant positive correlations between students' perceptions and both social and emotional outcomes suggest that favourable perceptions are closely associated with higher levels of perceived socio-emotional development. These findings should be interpreted as indicative of perceived associations rather than causal effects, highlighting the need for further research to examine how Circle Time may be designed and implemented to support university students' socio-emotional development.

### **Acknowledgment**

This research was not funded by any grant. Thanks to Diploma Pascasiswazah Pendidikan (DPP), Fakulti Pengajian Kontemporari Islam and Universiti Sultan Zainal Abidin for providing the academic foundation and continuous support that made this study possible. The researchers would like to express their sincere gratitude to Dr Wan Omar Ali Saifuddin Wan Ismail for his invaluable guidance and continuous feedback. Additionally, the researcher would like to extend their condolences to all participating respondents from various universities for their willingness to contribute their time and insight which were essential for the completion of this study.

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