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# Attendance Numbers at SI Sessions and Their Effect on Learning Conditions

**Johan Fredriksson, Joakim Malm, Arthur Holmer, and Lassana Ouattara**

**Abstract**

Supplemental Instruction (SI) is a well-known academic support model to address retention and student performance in higher education. However, in studies reporting the effect of SI, the number of attendees at SI sessions are seldom mentioned or reflected upon.

This study investigates whether there is a lower, optimal, and upper number of SI attendees for SI sessions with viable learning conditions. A literature review of 135 publications on studies of SI programmes was conducted along with a survey of 44 SI Leaders and 176 SI attendees at Lund University in Sweden.

The literature review shows that there is no consensus regarding minimum, optimum, or maximum numbers of SI session size for viable learning conditions.

In the survey, the number of attendees for optimal learning conditions was estimated to be 11–12 by both leaders and attendees. These respondents also estimated that if the number of attendees is below five or above 16 students, the learning conditions are likely to suffer. In the former case, this is attributed to too little collective knowledge, too few viewpoints, and a risk of the SI Leader being too prominent (less active participants). In the latter case, attendees are likely to find the conditions noisy and feel that they do not get seen, while the SI Leader may have difficulty structuring the session as well as getting an overview of the different group discussions.

The results hint at the importance of reporting attendance numbers at an SI session. Otherwise, it is impossible for an outsider to determine whether the conditions were favourable for small group learning and thus makes it hard to judge SI's effectiveness.

## Introduction

Supplemental Instruction (SI) is a well-known pedagogical concept to address retention and student performance in higher education. The method that was developed at the University of Missouri–Kansas City (UMKC) in the early 1970s is today spread all over the US as well as in other countries such as Australia, South Africa, Canada, UK, Ireland, and Sweden. The method can be described in brief as a supplementary collaborative learning opportunity in a course for students under the guidance of an older student who acts as facilitator. It does not target high-risk students but rather high-risk courses. The name Supplemental Instruction is unfortunately not the most descriptive, which is why other names are sometimes used, such as Peer Assisted Study Sessions,

or PASS (common in Australia and the UK); Peer Assisted Learning, or PAL (used frequently the UK, Ireland, and Germany); and Supported Learning Groups, or SLG (used sometimes in Canada). Independent of name, however, the learning programmes are based on the UMKC SI model. The model is documented and explained in training manuals for SI programme supervisors and student SI Leaders. The manual for SI Supervisors (UMKC, 2014a) is generally a description and guide for how an SI programme should be developed and run. The manuals for the SI Leaders (UMKC, 2004; 2014b) are more focused on the SI session—its structure and activities that can be used to provide a good collaborative learning opportunity. Normally the SI programmes are to some extent adapted to fit the educational culture of the particular country and the higher education institute. For example, the number of occasions when a supervisor observes an SI session and coaches the SI Leader is often lower than proposed in the supervisor manual due to economical and personnel constraints. In other respects, the manuals give little or no guidance for practitioners. One such example is the numerical range of participants that an SI session may have to create good conditions for collaborative learning. As SI Leaders are often paid and good candidates may be hard to find, it might be tempting to maximize the number of attendees at an SI session. Nevertheless, it seems reasonable to assume that the students' learning experience may suffer if the number of participants is too high. The conditions for good collaborative learning might also suffer if the number of participating students is too low. Discussions could be less fruitful when ideas and viewpoints are fewer. Unfortunately, attendance and the number of attendees at a typical SI session are seldom reported in publications, and it is therefore hard to determine whether the working and learning conditions for SI Leaders and participants were optimal. The aim of the present study is to address the range of participants that allows for good collaborative learning conditions at an SI session.

The research questions of the present study are

1. When does the number of attendees become too small or too large for fruitful SI sessions with respect to student learning? And why is that so?
2. Is there an optimum number of attendees at an SI session with respect to student learning?

## Method

The research questions were addressed with a literature review followed by an online survey. The results will be presented in these two parts.

The literature we covered was comprised of 135 publications focused on articles in peer-reviewed journals based on an internet search using the most familiar names of SI: SI, Peer Assisted Study Schemes or Peer Assisted Study Sessions (PASS), Peer Assisted Learning (PAL or PALS), and Supported Learning Groups (SLG). We also looked through a status report for SI, PASS, and PAL programmes in Europe from 2018 and manuals for SI Leaders and SI Supervisors.

We were primarily interested in whether there were publications targeting our research questions about a recommended numerical range for SI session attendance. Secondly, we were interested in how common it is to report SI

session attendance numbers in publications and also in the attendance size ranges prevalent in the world.

The online survey addressed SI Leaders and participants at Lund University as well as at several secondary schools in the southern part of Sweden as a reference study. The survey included background questions concerning discipline and subject. Besides background information, the questions included in the survey were the following:

- How many SI sessions have you attended or held?
- What is the lowest number of participants you have experienced in an SI session?
- What is the highest number of participants you have experienced in an SI session?
- What do you think is the minimum number of participants required for a fruitful SI session?
- Which problems arise when the number of attendees falls below this lower limit?
- What do you think is the maximum number of participants that can attend and still allow for a fruitful SI session?
- Which problems arise when the number of attendees exceeds this higher limit?
- What do you think is the optimal number of participants that is required for an SI meeting from an optimal learning condition perspective?

To avoid a too vague interpretation of what a "fruitful" SI session is, we defined a "fruitful" SI session as a session where most of the following attributes hold true:

- different viewpoints are expressed;
- the SI Leader has an overview of what is happening at the session;
- the session consists of discussions;
- the SI participants are the driving force of the session;
- the participants exchange information;
- all the participants participate fully and attain a new level of understanding;
- the groups reinforce each other;
- the participants learn how to learn;
- a positive atmosphere reigns; and
- the participants are content and willing to attend further sessions.

The rationale behind the questions concerning the number of SI sessions attended and the experienced (as opposed to suggested) attendance numbers was to investigate whether the suggested sizes expressed by students were in any way related to the participants' previous SI experience. To analyse this, the entire cohort of attendees was divided into three groups of more or less equal sizes, depending on the smallest group size they had experienced. Furthermore, to ensure that the results were not skewed by further factors, the same analysis process was applied based on the largest SI session experienced, the number of SI sessions experienced, the span between the largest and

smallest SI session, as well as differences in discipline (humanities versus natural sciences).

## Literature Review

Of the 135 publications we reviewed, merely 32 of them mention SI session attendance–related information, and most of that information is vague. An overview of the information about attendance numbers is provided in Table 1.

One group of articles provides information about planned attendance size but no numbers of the actual attendance size. A second group of publications provides information on the actual group attendance but no reflection on how the learning environment was affected by the SI sessions' attendance numbers. A third group of articles evaluates briefly whether some session attendance numbers are more viable than others.

In conclusion, very few articles mention information related to attendance numbers at SI sessions at all. The focus of the reported information in the literature is more towards the dimensioning of students per SI Leaders rather than the actual session attendance sizes. Hence, we had to make many calculations ourselves to extract an average or a range of attendance. Still, in some cases, the attendance information is implicit; i.e., the actual attendance is not reported—only the planned dimensioning of the group size. Furthermore, even fewer articles report attributes related to *desired* or *recommended* attendance, and those SI session size ranges vary from 8–12 to 20–30 students. However, these reports are not based on evidence. In the literature, there is no clear consensus regarding minimum, optimum, or maximum numbers of SI session attendance size for viable learning conditions. The rationale for recommended numbers is seldom explained, and even when present, the explanations are vague.

Table 1
*Overview of the literature review covering reported session attendance*

| Reported session attendance | Remarks on how learning conditions are affected by SI session attendance number | Context | Publication |
|---|---|---|---|
| 1 SI Leader assigned per 120 students* | None | SI programme at Texas State University | Summers, Acee, & Rycer (2015) |
| 72 students randomly divided into groups of 8–10 students* | None | First-year PAL scheme at Kingston University and St. George's University of London, UK | Hammond et al. (2010) |
| 1 SI Leader assigned to a class of 36 students; following semester, 27 students* | None | SI programme at El Centro College, Dallas, Texas, USA | Goomas (2014) |

| | | | |
|---|---|---|---|
| 5 tables each seating 10 students indicating a maximum of 50* | None | SI programme at the University of KwaZulu-Natal in South Africa | Paideya (2011) |
| 10–15 students* | None | PAL scheme at Kingston University, UK | Longfellow et al. (2008) |
| 7th grade: 2 groups of 8 students* 9th grade: 2 groups of 15 and 14 students* | None | SI programme at a lower secondary school in a socially challenged area in Sweden | Fredriksson & Lindberg (2014) |
| 10 students per SI Leader to handle attendance peaks of 25–30* | None | SI programme at the Faculty of Engineering, Lund University, Sweden | Malm, Bryngfors, & Mörner (2012) |
| Usually 8–16 students | None | PASS programme at the University of Sydney, Australia | Dancer, Morrison, & Tarr (2014) |
| 5–20 students | None | PAL programme at Bournemouth University, UK | Capstick & Fleming (2004) |
| 2 PASS Leaders assigned per group of usually 5–8 students | None | PASS scheme at University of Manchester, UK | Coe et al. (1999) |
| Average of 19.8 students | None | Peer Support programme at University of Oxford, UK | Ashwin (2003) |
| As high as 30 students | None | SI programme at University of Central Florida, USA | Congos & Stout (2003) |
| 3–20 students | None | Systematic review of SI and PASS literature between 2001–2010 | Dawson et al. (2014) |
| Average of 1–22 attendees in different courses | None | PASS scheme at the University of Glamorgan, Wales | Packham & Miller (2000) |
| 5–10 students | None | SI programme at the University of Southern California, USA | Sawyer et al. (1996) |
| 2–10 students | None | PAL sessions at Kingston University, UK | Smith, May, & Burke (2007) |

| | | | |
|---|---|---|---|
| Average of 10.6 students; usually 5–15 | None | SI programme at Lund University, Sweden | Malm, Bryngfors, & Mörner (2011, 2015) |
| 3–22 students with average of 8.8; average of respective HEIs' averages is 10.2 | None | Compiled status report of SI, PASS, and PAL programmes in Europe including 60 HEIs | Malm et al. (2018) |
| Average of approximately 60 students; up to 100; ideally 20–30 | Ideally 20–30; no explanation of why that range is ideal; several students reported problematic learning conditions during large sessions | SI programme at University of Pretoria, South Africa | Harding, Engelbrecht, & Verwey (2011) |
| 12–43 students (unclear how many tutors, as they call it); planned group size of 5–10 per tutor | Planned group size of 5–10 to prevent group sizes from being too big or too small | SI programme at the Memorial University of Newfoundland, Canada | Hurley et al. (2003) |
| Usually 5–15 students | 5–15 in order to "optimize the chances of a good discussion climate" | Faulty of Engineering, Lund University, Sweden | Malm, Bryngfors, & Fredriksson (2018) |
| Up to 25 students per 2 PASS Leaders | Vaguely indicates that more than 25 students per 2 leaders is too large | PASS programme at the University of Queensland, Australia | Playford, Miller, & Kelly (1999) |
| PAL Leaders trained to lead groups of up to 20 students* | Indicates an upper limit for viable learning conditions | PAL scheme at Bournemouth University, UK | Allen & Court (2009) |
| Not reported | Survey responses from SI participants mention "the groups being too large" and "the attendance was too low to learn" | SI programme at University of Missouri–Kansas City, USA | Stone, Jacobs, & Hayes (2006) |
| Average of 13 students | Some sessions were too crowded without ample time to cover all the necessary material | SI programme at Rensselaer Polytechnic Institute, USA | Webster et al. (1998) |
| Scheduled to limit max attendance to 25* | Indicates an upper limit of 25 attendees for viable learning conditions | SI programme at the University of Minnesota, USA | Cheng & Walters (2009) |
| Enrolment limits for the SI session of 25–30 to maximize access* | Indicates an upper limit of 25–30 attendees for viable learning conditions | SI programme at California State University, USA | Ramirez (1997) |

| | | | |
|---|---|---|---|
| Enrolment limit of 20 for the SI groups* | Indicates an upper limit of 20 attendees for viable learning conditions | SI programme at San Francisco State University, USA | Rath et al. (2007) |
| No more than 5 peers could be assigned to each group leader; one group of 8–9 students* | Indicates an upper limit of 5 attendees per SI Leader for viable learning conditions; group of 8–9 "larger than desirable" | PAL scheme at the University of Central Lancashire, UK | Tariq (2005) |
| Dimensioning of 30–40 students per SI Leader with the aim of 8–12 per SI session* | With overly small SI attendance, it becomes difficult to work on methodology; preferable to dimension larger groups since attendance tends to drop as a whole with overly small groups | SI programme at Lund University, Sweden | Bryngfors & Bryzell (1997) |

*Actual attendance number not reported.

## Results of the Online Survey

The aim of the online survey of participants and leaders in an SI programme at Lund University was to ascertain the average upper and lower limits on group size within which an SI group could, in the opinion of SI attendees and leaders, still function to create a "fruitful" session as defined previously. The survey results are given in Table 2.

Table 2
*Lower and upper boundaries (standard deviations within parentheses) for viable number of attendees at SI sessions to allow for fruitful collaborative learning conditions, as well as suggested optimal number of attendees*

| | Number of answers | Suggested minimum viable number of attendees at SI | Suggested maximum viable number of attendees at SI | Suggested optimal number of attendees at SI |
|---|---|---|---|---|
| SI Leaders | 44 | 4.1* (± 1.6) | 16.2* (± 6.5) | 10.6 (± 3.4) |
| SI attendees | 176 | 5.2* (± 2.5) | 18.9* (± 6.9) | 11.8 (± 3.9) |

*Statistically significant differences between answers from SI Leaders and attendees with $p < 0.05$ using a double-sided t-test in Excel.

As can be seen, the lower limit for a viable number of attendees was estimated at roughly 4–5 (4.1 according to leaders, and 5.2 according to attendees), and the upper limit at 16–19 (16.2 according to leaders and 18.9 according to attendees). The optimal size was estimated at 10–12 attendees (10.6 in the opinion of leaders and 11.8 in the opinion of attendees).

It is clear from the results that leaders tend to prefer marginally smaller number of attendees (e.g., leaders judged that the maximum number of attendees was 16.2 participants, while participants estimated the number to be 18.9 on average). Nevertheless, what is striking is the similarity between the results. Both SI Leaders and SI attendees had a fairly clear idea of what they considered to be a viable number of attendees, and this idea is not very different between the groups.

To check whether the respondents' answers were related to previous experience, see Table 3.

Table 3
*Attendees' lower and upper boundaries (standard deviations within parentheses) for viable number of attendees at SI sessions to allow for fruitful collaborative learning conditions, divided according to smallest experienced number of attendees.*

| Smallest experienced number of attendees | Number of answers | Suggested minimum viable number of attendees at SI | Suggested maximum number of attendees at SI | Suggested optimal number of attendees at SI |
|---|---|---|---|---|
| S-group 1–5 attendees | 59 | 4.5[1,2] (± 2.1) | 18.3 (± 8.7) | 10.9[3] (± 4.0) |
| M-group 6–8 attendees | 57 | 5.0[1,2] (± 2.3) | 19.2 (± 5.0) | 12.1 (± 3.5) |
| L-group 9–30 attendees | 59 | 6.2[1,2] (± 2.8) | 19.6 (± 6.3) | 12.6[3] (± 3.7) |

*Note*. Statistically significant differences between answers from SI Leaders and SI attendees with $p < 0.05$ marked with [1] resp. [2] (between the S- and L-group, and between M- and L-group regarding minimum viable number), and [3] (between the S- and L-group regarding optimal number) using a double-sided t-test in Excel.

What is striking is the similarity among the three groups. There seems to be a fairly strong consensus that the minimum viable group size is 4–6 participants, the maximum viable group size is 18–20 participants, and the optimal group size is between 11 and 13 participants, irrespective of what groups sizes the participants have experienced. There were only statistically significant differences (with $p < 0.05$) among a few of these groups: the minimum viable number given by the S-group compared to the L-group, and the M- compared to the L-group; and the optimal number given by the S- and L-group.

We also analysed the data to see if the results were skewed by other factors such as the largest SI session experienced, the number of SI sessions experienced, the span between the largest and smallest SI session, as well as differences in discipline (humanities versus natural sciences). All of these studies showed similar patterns: there were marginal differences between the groups, but the preferred minimum remained somewhere between 4 and 6, the preferred maximum somewhere between 18 and 20, and the optimum between 10 and 13. We therefore conclude that this represents a general pattern: no matter what level of experience attendees or leaders have, no matter which course or discipline they are supporting, no matter whether they have mainly experienced large groups or smaller groups, the participants seem to agree that a fruitful SI session requires that the group have at least 4 attendees and at most 18–20 attendees, with an optimal range of around 10–12. For this reason, the other results will be omitted here.

From the results summarised in Tables 2 and 3 above, it is clear that both attendees and SI Leaders feel that attendance below 4–5 students may affect student learning negatively. Why is that so? The main reasons are summarised in Table 4. These were obtained by analysing free-text answers from SI Leaders and participants in terms of themes. Not surprisingly, the main reason from both groups is that the discussions may suffer. There may be too few points of view or too little collective knowledge. Furthermore, some SI Leaders

express concern that they become too prominent in the discussions, which may affect the students' active learning negatively.

Table 4
*What problems arise when the number of attendees falls below the minimum that is required for a fruitful SI session?*

| Problem | SI attendees | SI Leaders |
|---|---|---|
| Difficult to discuss (too few points of view, too little collective knowledge) | 82% | 88% |
| Too few groups (bad dynamics, difficult with presentations for each other) | 4% | 14% |
| Poor cooperation, no "real" SI session | 0% | 5% |
| SI Leader becoming too prominent (less active students) | 0% | 31% |

Some examples of free-text answers illustrating the main response themes are given below.

SI Leaders

- "A critical mass is needed with respect to creativity and ideas in the group as well as people with answers. Overly small groups easily become passive or dependent on me as a leader."
- "There is no flow in the discussions and the thoughts that are brought up are not challenged; i.e., little depth in the learning experience."
- "Too few attendees may lead to discussions running low and passiveness amongst students, which forces the SI Leader to take command more and more."

Participants

- "There may not be enough opinions and ideas leading to unfruitful discussions."
- "The principle 'nobody knows everything but everybody knows something' does not work when you are too few."
- "The number of opinions, active participants, and memories from earlier lectures or classes becomes too small."
- "There may be a lack in combined knowledge and all participants may feel uncomfortable taking the role of a 'teacher.' "

It is also apparent from above that both participants and SI Leaders feel that there is an upper boundary of number of attendees to have a fruitful SI session. The reasons given as free text answers are summarised as themes in Table 5. According to participants, the two main obstacles to fruitful SI meetings when the number of attendees becomes too high are 1) a noisy environment with a lack of order and 2) hindering active participation from attendees. The second reason is echoed to a high extent by SI Leaders. According to SI Leaders, the difficulties they experience in obtaining good structure and overview in a crowded meeting may also impact the students' learning experience negatively.

Table 5
*What problems arise when the number of attendees exceeds the maximum for a fruitful SI session?*

| Problem | SI attendees | SI Leaders |
|---|---|---|
| Too chaotic or noisy | 45% | 26% |
| Difficult as an attendee to participate or be seen, heard, listened to | 35% | 43% |
| Difficult for the SI Leader to structure and have an overview of the session | 9% | 48% |

The themes in Table 5 are illustrated below in examples of typical free-text answers from the two groups.

SI Leaders

- "I believe it can be a problem to have a good overview of how the participants are doing and to ensure that everybody is active."
- "It is hard to get everybody to participate and it is easy for participants to 'zoom out' or work alone or simply start playing with the mobile phone instead."
- "It is hard to get an overview of what is happening. Not everybody can be heard due to lack of time. Someone may easily end up on the outside or sitting quiet."

Participants

- "Not everybody has the opportunity to talk and be active. Those who are less sure of themselves may more easily choose to 'hide.' It may also feel harder to ask questions or ask more times if one does not understand as quickly as others do."
- "There are too many to be heard in too short time. You become one of many when the purpose is partly to get to know your SI Leader and classmates."
- "Too chaotic, noisy, and harder to participate in discussions --> you learn less."
- "Too noisy in the classroom leads to less focus. Takes longer time to organize groups or change of activities, which becomes time inefficient."
- "Hard for the SI Leader to structure the meeting and place groups so that the noise level does not become too high. It is also hard to have whole group discussions or presentations."

Furthermore, as mentioned above, both SI Leaders and SI participants seem to agree that the optimal SI session from an attendance point-of-view comprises 11–12 students.

**A reference study in secondary education**

With respect to SI practised in secondary education, we did a similar survey study at some upper secondary schools in southern Sweden. The results are summarised in Table 6. Although the set of respondents is smaller than the

respondents in tertiary education, we see similar answers for minimum, maximum, and optimal number of attendees at SI.

Table 6
*Lower and upper boundaries (standard deviations within parentheses) for viable number of attendees at SI sessions to allow for fruitful collaborative learning conditions, and suggested optimal number of attendees.*

| | Number of answers | Suggested minimum viable number of attendees at SI | Suggested maximum number of attendees at SI | Suggested optimal number of attendees at SI |
|---|---|---|---|---|
| SI Leaders | 20 | 5.0 (±1.6) | 16.0 (±3.4) | 11.9 (±2.9) |
| SI attendees | 47 | 6.3 (±3.0) | 15.9 (±4.9) | 11.3 (±3.7) |

## Implications

The findings of this study indicate how important the number of attendees is for favourable learning conditions at SI sessions, hence, how important it is to consider this when dimensioning the SI programme. Trainers of SI Leaders may do well to discuss the effects of having overly small or large groups, which could help SI Leaders to both manage expectations of their SI sessions when attendance numbers deviate, as well as cultivate tools and strategies to further prepare to mitigate these effects. For example, how can SI Leaders be better prepared to deal with the challenges of large or small groups? Are there ways to leverage the advantages of a larger group while minimizing the drawbacks?

Furthermore, these answers to the research questions hint at the importance of reporting attendance numbers in SI sessions. Otherwise, it is impossible for an outsider to determine whether the conditions were favourable for small group learning, making it hard to judge the effectiveness of SI.

## Limitations and Further Research

There are obviously a number of limitations with the present study. In the online survey, we considered SI sessions in a Swedish context only. There might be differences in which SI session attendance numbers are perceived as yielding viable learning conditions in other educational systems. Therefore, similar studies in other countries are welcomed.

Other limitations of the present study include not accounting for variables such as student preparedness levels, session topic, demographics or diversity, motivation levels, duration of SI session, involvement in other similar types of groups that may impact perception, institutional context, and student cohorts (e.g., first-year students in comparison to transfer students). Also, the impact of more than one SI Leader at a session, which is customary at some higher education institutions, can have an impact on which SI session attendance numbers provide viable learning conditions. Thus, further research accounting for these factors is welcomed.

## Conclusion

The literature review shows that there is no consensus regarding minimum, optimum, or maximum numbers for SI session attendance size for viable learning conditions. Few articles—32 out of 135—mention information related to attendance numbers at all, and these reports are mainly related to the planned dimensioning but not the actual attendance sizes. Furthermore, even

fewer articles report desired or recommended attendance numbers, and those ideal session size ranges vary from 5–15, 8–12, and 20–30 students. Thus, based on current literature, it is difficult to draw any conclusion on ideal, lower, and upper attendance numbers for viable learning conditions in SI sessions.

In order to answer the research questions stated in the introduction, we have to turn to the results from the online survey of participants and leaders of SI sessions at Lund University, Sweden. Here we defined a "fruitful" SI session as a session where most of the following attributes hold true:

- different viewpoints are expressed;
- the SI Leader has an overview of what is happening at the session;
- the session consists of discussions;
- the SI participants are the driving force of the session;
- the participants exchange information;
- all the participants participate fully and attain a new level of understanding;
- the groups reinforce each other;
- the participants learn how to learn;
- a positive atmosphere reigns; and
- the participants are content and willing to attend further sessions.

Based on this survey, the ideal number of attendees at an SI session according to SI Leaders and participants is about 11–12. If the number of attendees at an SI session is smaller than 4–5 or higher than 16–19, both SI Leaders and participants feel that there is a clear risk that the collaborative learning conditions will suffer and that the SI session will be less effective. When there are too few attendees, it is likely that the collective knowledge will be too small, the viewpoints too few, and the SI Leader too prominent (less active participants). When there are too many participants, there is a clear risk of a noisy or chaotic group discussion environment and that active participation for attendees is hindered. It is furthermore hard for the SI Leader to organize and overview the group work properly, which might lead to groups having to wait for the proper guidance and feedback.

Conclusively, we believe that an increased awareness of the effects of overly small or overly large SI session attendance can help in providing as viable learning conditions as possible for the participants in their peer learning schemes. This can be done through careful dimensioning of the peer learning schemes; integrating the perspectives of the effects of large or small attendance numbers in the training of SI Supervisors and SI Leaders; cultivating strategies and tools to address these situations with mitigated drawbacks; and also reporting the attendance numbers in SI sessions.

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