

## University Students Want More Interactive Lectures

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Currently, examining student desires for Active Learning (AL) in university lectures is an underresearched topic. The purpose of this study was to investigate Japanese university student preferences specific to the inclusion or exclusion of AL in traditional 90-minute university lectures, drawing on qualitative data and descriptive statistics gathered from a series of student surveys. The study is part of a larger longitudinal project and builds on the work established in an earlier pilot study (see Deacon, 2019). Results showed that 90% of students felt deep dissatisfaction with conventional teacher-centered lectures and instead expressed an overwhelming preference for AL-infused lectures. Implications drawn from this study strongly indicate the need for instructors to adopt more of an interactive approach to lecturing at the university level, featuring more active involvement from students in the classroom, in order to motivate and engage learners, develop critical thinking skills, and promote a more positive learning environment.

アクティブラーニング(以下AL)を適用した大学講義への学生の要望は、昨年注目されているテーマである。本研究では、日本の大学生が90分の従来型の大学講義にALを導入することを好ましいとするか否かについて一連の調査を実施し、質的、統計的分析を行った。また、この研究は、予備調査(Deacon, 2019)に基いており、より大規模で長期的なプロジェクトの一部を担うものである。本調査の結果、90%の学生が従来の講師を中心とした講義形式に深い不満を抱いており、ALを導入した講義形式が好ましいと回答している。学習者をクラスに積極的に参加させ、批判的な思考能力を発達させ、よりポジティブな学習環境を促進させるためには、大学レベルの講義においても、よりいっそうAL型の講義形式を導入することが必要であることを強く示唆するものである。

*“More important than the curriculum is the question of the methods of teaching and the spirit in which the teaching is given.”* (Bertrand Russell, 1926, chapter 16, para. 3)

Active learning (AL) has been broadly defined as “anything that involves students in doing things and thinking about the things they are doing” (Bonwell & Eison 1991, p. 2), or as “any instructional method that engages students in the learning process” (Prince, 2004, p. 223). According to the Science Education Resource Center at Carleton College (n.d.), it is generally accepted that AL represents a student-centered approach where students take the responsibility for their learning while working in collaboration with other students and where teachers are seen as facilitators. AL typically encompasses collaborative learning, cooperative learning, and problem-based learning (Prince, 2004) and includes the cultivation of higher order thinking skills in line with Bloom’s taxonomy (see Bloom, 1956). Some have posited that AL should be seen merely as one approach contributing to improved pedagogy. AL is still not clearly understood in Japan and it has been suggested that the term “proactive learning” be used instead in this context (Ito, 2017).

In their latest course of study guidelines, the Ministry of Education, Culture, Sports, Science and Technology (MEXT, 2014) called for more student-centered AL in classrooms at every stage of education in all subjects. To that end, MEXT is putting significant pressure on Japanese universities to adopt and promote AL (Jones & Palmer, 2017) to help students develop the skills and other abilities they need to compete more effectively in the global marketplace (Ito, 2014; Waniek & Nae, 2017; Yamada, 2015). AL has only been widely referred to in Japan in the last decade (Mizokami, 2014), with a subsequent recent uptick in research interest (see Matsushita, 2018). Nevertheless, there is still a lack of research on AL at the university level (Waniek & Nae, 2017) and “few studies have investigated faculty and student perceptions regarding the effectiveness of active learning or the barriers to its implementation” (Patrick, Howell, & Wischusen, 2016, p. 55).

The findings of two studies that have recently investigated student perceptions of AL in Japan showed that a majority of university students preferred lecture-centered classes

because they were seen as less demanding (Benesse, 2012) and possibly because Japanese university students are not familiar with AL education styles (Fukuda, Yoshida, Kamioka, Sakata, & Pope, 2016). Insufficient knowledge and experience with AL can sometimes actually demotivate or discourage students (Waniek & Nae, 2017), although Fukuda et al. (2016) demonstrated that university students who have experience and training with AL and self-regulated learning skills do prefer AL approaches to education. It would seem that more research, particularly in conjunction with students' perceptions of AL in lectures, is needed.

Traditional forms of lecturing are still the primary teaching method in university classrooms around the world, despite evidence that shows that they are less effective than AL (Stearns, 2017). Although some instructors have embraced AL as a viable alternative to unsatisfactory traditional practices, others remain skeptical and unsure what AL is and how to implement it (Prince, 2004). Still others believe that merely implementing an AL approach is sufficient, without giving thought to how it can be utilized to enhance learning (Tsuchimochi, 2016). Nakai (2015) further pointed out that Japanese university instructors have complained that although students participate more actively in AL classes, they do not learn the content of the classes any more efficiently. On the distinction between AL and lectures, Mizokami (2015) explained, "Active learning includes all kinds of learning beyond the mere one-way transmission of knowledge in lecture-style classes (= passive learning). It requires engagement in activities (writing, discussion, and presentation) and externalizing cognitive processes in the activities" (p. 79). A comprehensive meta-analysis of 225 studies comparing AL and the traditional lecture style in STEM undergraduate courses found that failure rates amongst students increased by 55% when courses were delivered in the lecture medium, but courses delivered through AL or using teaching methods that are more interactive than traditional lectures led to better grades and a 36% decrease in student failure rates (Freeman et al., 2014). Unfortunately though, passive learning is still prevalent in many lecture-style classes in Japan, as many lecturers lack an understanding of what AL is and how to specifically implement it in their classes (Nakai, 2015).

The importance of effective lecturing skills is not to be taken lightly, given Bryson and Hand's (2007) conclusion that "the lecturer can really make it interesting or can almost destroy a subject" (p. 357). In order for AL to take greater root in lecture classes, it may be necessary for both teachers and students to reconceptualize their roles. To illustrate, Biggs and Tang (2007) commented that one problem is "both teachers and students (may) see the lecture as a matter of teacher performance, not of learner performance" (p. 138). Thus, shifting the focus away from teachers and more on students would

be one transformative step towards encouraging AL in lecture classes. Change must occur systemically as higher education faculty have been shown to emphasize research and professional advancement over teaching skills, partly due to institutions favoring credentials while viewing students more as consumers than learners (Arum & Roksa, 2012). Matsushita (2015) added another perspective to the AL in lectures discussion: "Although active learning is valuable in terms of providing a chance to reexamine the existing lecture-dominant class format, if it stayed as just that, temporary liveliness might be the only benefit it provided for classes" (p. 8). Clearly, there are issues spanning several areas of education that must be addressed in order for AL to become more prevalent in lectures.

A review of the research to date suggests that AL can be an effective approach for enhancing learning but that it is not widely understood in Japan by instructors nor actually preferred by students who are unfamiliar with it. The objective of our study then was to analyze our students' perspectives on lectures, including the extent to which they would like to be engaged (or not) in AL activities within the lecture medium. Thus, for the purpose of this study we adopted the following definition of AL provided by Freeman et al. (2014): "Active Learning engages students in the process of learning through activities and/or discussion in class, as opposed to passively listening to an expert. It emphasizes higher-order thinking and often involves group work" (p. 8413-8414). For this study, we define *lecture* as a teacher-centered medium for instruction, for dispersing content, with minimal interaction between the instructor and the students. These are traditional 90-minute lectures whereby knowledge is being transmitted to large classrooms of students by university professors who are most often, though not always, experts in the lecture area content. The students, therefore, most often assume a mildly engaged role as passive recipients of such knowledge. Although we are not directly referring to typical university language classes, where communicative language proficiency is usually more the focus, this research has implications for EFL instructors in these contexts as well. Many university EFL instructors do lecture during segments of their language classes, and others teach combinations of traditional 90-minute lecture courses coupled with language courses. Thus, we expect that the research here will have implications for a variety of teachers who employ the lecture medium.

## Methodology

The research methodology for this study was qualitative. The primary research question was to what extent do students perceive the inclusion or absence of AL in university lectures to impact their learning?

To address this question and explore the rationale behind the students' responses, written surveys were administered to 1st- and 2nd-year students. The survey used was a modified version of that which was implemented in the pilot study (see Deacon, 2019). Questions on the survey were formulated by the researchers and were designed to ascertain students' perceptions of lectures in general (see Appendix). Data were collected first through a closed-ended selection of questions that focused on students' preferences for lecture styles. These questions included various time-bound choices of lecturing, discussion, and summarization of lecture content. Discussion and summarization options, in particular, were given for two reasons: (a) students had most frequently mentioned a desire to share their own ideas and have chances to clarify the content in lectures in feedback gained in a prior program survey to this study, and (b) these options are situated pedagogically within the AL approach. Students were then invited to share their rationale for the choice that they had made by filling in an open-ended statement that was provided. Data from the closed-ended section were analyzed in the form of descriptive statistics. An average was calculated for each stage in the project. The open-ended qualitative data were coded following the principle of thematic coding (Saldaña, 2013) by both researchers in order to ensure greater inter-rater reliability. The researchers then analyzed the data to determine corresponding themes and subthemes. Finally, grounded theory (see Charmaz, 2014; Strauss & Corbin, 1990) was used to conceptualize the salient findings.

The participants in this study were 1st- and 2nd-year students studying at a private university in central Japan. The 1st-year students first completed the survey at the beginning of their academic year before they had had any experience with 90-minute lectures ( $n = 135$ ) and then again (the same survey) near the end of their first quarter of studies 5 weeks later, after having experienced 12 of 15 quarterly 90-minute lectures ( $n = 117$ ). The 2nd-year students ( $n = 87$ ), who were a separate group of participants, completed the same survey near the end of their first quarter of studies after more extensive experience with 90-minute lectures. All students completed the survey anonymously and on a voluntary basis in approximately 10 minutes of class time. The researchers were not the class instructors. The students entering this faculty are considered intermediate or above, in terms of their English proficiency (based on an average TOEFL score of approximately 500).

The university program in which these students are situated can be considered high stakes, particularly as the majority of them participate in a 6-week study abroad program in the second quarter of their sophomore year. This program includes lectures in English and group projects that require active participation. Thus, their program in Japan

promotes AL as a core component and students are expected to cultivate their academic skills and abilities before going abroad. Early in their first week of classes in their 1st year, students receive instruction on what AL encompasses and what the benefits are. Japanese instructors deliver the majority of the lectures (in Japanese), but other core courses, including English language skills-focused courses, are taught by both native and nonnative English speakers. The lectures are typically offered to a group of approximately 150 first-year students and 150 second-year students in this faculty. The number of completed surveys is less than the total number of students in each faculty year, due to student absences from lectures.

### Results and Discussion

Because analysis of the abundance of data is well beyond the limits of this paper, this section is focused only on the responses related to question #3 on the survey. The question simply asked students which style of lecture they preferred and their rationale. In total, 339 surveys were collected. Table 1 provides an overview of the responses from students.

Table 1. Lecture Style Preference (Breakdown of 90 minutes)

Options	1st-year (1)* ( $n = 135$ )	1st-year (2)** ( $n = 117$ )	2nd-year ( $n = 87$ )
A) 90-minute lecture	14 (10%)	9 (8%)	10 (11%)
B) 40-minute lecture + 5-minute discussion (x2)	77 (57%)	74 (63%)	52 (60%)
C) 25-minute lecture + 5-minute discussion (x3)	32 (24%)	25 (21%)	21 (24%)
D) 10-minute lecture + 5-minute discussion (x6)	7 (5%)	4 (3%)	0 (0%)
E) Other	5 (4%)	5 (4%)	4 (5%)

Note. \* = surveyed at beginning of academic year before lecture experience; \*\* = surveyed after 5 weeks of lectures.

From this data, there are two important findings to be explored in more detail. First, approximately 60% of the students chose B as their preferred style of lecture in all three

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instances. This was significantly higher than any other choice and higher than all the other options (A + C + D + E) combined. In all three groups, option C was the next most popular choice. These findings show that students still perceive value in lectures, as they did not opt for option D with the most discussion time. However, most of the students also did not opt for option A (90-minute lectures). This reveals that students generally prefer a somewhat interactive-style lecture, in which they can obtain important information and knowledge from the lecturer but in which they also have time to discuss and share opinions with their classmates. Following are a collection of responses that illustrate the positive view of lectures from the students' perspective in addition to the desire to discuss and share with classmates, supporting the view that discussions enhance learning:

*I want to listen to teacher's talk and absorb the new knowledge about the topic. Then, I want to discuss.*

*I think having some time of teacher lecture is important to gain knowledge, but I think it is student's work to extend knowledge.*

*In my case, 40 minutes is enough to get new information, and after that we can discuss it.*

*Both lectures and discussion are important.*

*I can think about the topic deeply through the discussion.*

*Teacher lecture is important. Students must learn how to listen to. But students also must learn how to discuss or suggest own opinion.*

This desire for an interactive-style of lecture is based on two principles: (a) AL in the form of discussions with classmates will enhance what students have learned from the lectures and (b) AL in the form of discussions will limit or eliminate some of the negative aspects arising from 90-minute lectures (boredom, loss of concentration, apathy, sleepiness). The previous responses support the first principle and the following responses support the second principle:

*A 90-minute teacher lecture is not as interesting compared to classes that have student activities.*

*I can listen to 40 minutes but 90 minutes is hard for me.*

*I want to listen to teachers' lecture, but keeping quiet for 90 minutes will make me so tired.*

*I think long lectures make us bored, but lectures are necessary. So 40-minute lectures are the right time.*

*Too long a lecture is boring. Active learning is a good way to get more interested for students.*

Although the vast majority of students preferred some form of AL during the lecture time period, there was a small minority of students who preferred the traditional 90-minute lecture or who cautioned against AL being implemented. Following are some of their comments:

*If we have discussion time, some people chat with their friends.*

*I don't have much knowledge now. I can't discuss some problems because of that.*

*I think that we can discussion ourselves in our free time. I want to learn more knowledge for teacher lecture.*

*I don't have enough knowledge, so I want to hear lecture more than discussing about it.*

*I want to listen to smart teachers and know a lot of things!*

*Discussion is a good way to check the understanding, but sometimes the answer of the discussion doesn't come out or some people don't join or talk.*

From these perspectives emerges a cautionary tale against implementing AL in lecture classes. Lecturers need to be aware that a certain number of students do not actually like talking with classmates and do not see the value in discussing matters with classmates who are perceived as less knowledgeable than instructors.

One more potentially important finding from this study is the declining attendance figures in the lectures. While 135/150 (90%) attended a lecture early in the first quarter of their 1st year, this dropped to 117/150 (78%) by the end of the first quarter and to just 87/150 (58%) by the first quarter of the 2nd year. The reason for this decline could indicate a general lack of interest and dissatisfaction with lectures; obtaining data from absent students could reveal many important discoveries. Regrettably, the anonymity of the surveys meant the researchers were unable to determine who had been absent and to administer surveys to them at a later date.



Overall, the major finding from this study is that students say they prefer an interactive-style lecture that incorporates many of the basic AL principles. Thematic coding of their rationale revealed a host of subthemes related to positive views of utilizing AL and lectures to construct:

- a. the desire to interact with peers (share opinions, deepen their understanding of the content through interaction, review the lecture content, be more active, think more deeply, and concentrate more);
- b. learning from peers (hear other opinions and ideas, deepen own ideas, gain new perspectives);
- c. positive emotional effects (more interesting, more enjoyable, able to stay awake, refresh students); and
- d. others (interact with teachers).

Thematic coding of the participants' responses also yielded a separate category of subthemes. This category can be described as avoidant themes and showed the participants' views of AL in lectures as serving to neutralize problems within learners:

- a. emotions (listening for 90 minutes is tiring and difficult, concentration ability is limited, one-way lectures are not productive and are boring, makes students sleepy) and
- b. lectures are not as interesting as classes with student interaction.

In many cases, students responded with a combination of themes, frequently stating the negative aspects of lectures and the positive aspects of making them more active, but also warning of potential pitfalls.

The findings from this study somewhat contradict findings by Benesse (2012) and Fukuda et al. (2016), which showed that Japanese university students preferred the traditional lecture-style approach to AL. While the majority of students wanted an infusion of AL within lectures, many still predominantly wanted the instructor to lecture to at least some extent during the class. Another important finding is that many of our students wrote extensively about their views of AL and AL-related activities and seemed to be fairly knowledgeable, in terms of describing the potential positive and negative effects of an AL-hybrid style lecture. This contradicts a finding by Ito (2017) that suggested students do not understand AL but can possibly be attributed to the extensive promotion by our faculty regarding the AL approach our program promotes.

Finally, the researchers readily accept that while the findings in this study are applicable in our context, they may not easily be extrapolated to other academic lecturing contexts. Perhaps the most important point we wish to make is that lecturers must learn to listen more and take their bearings from their students. We believe that "learning is not a spectator sport" (Chickering & Gamson, 1987, p. 4) and that it is important for teachers to probe more deeply into their teaching and the learning dynamic during lectures by gathering student feedback. Collecting and reflecting on student perspectives on learning, as we have shown in this study, can help teachers take advantage of what Stevick (1998) suggested: that success or failure in a course depends less on linguistic analysis and pedagogical techniques than on what goes on inside and between the people in the classroom (p. 4). Collecting feedback on student perceptions of learning, in particular, can help teachers examine their practices from a wider lens and expand their teaching approaches, including AL, to more effectively enhance student learning.

To summarize, a simple desire by our students for some form of AL in their lectures is the primary finding from this study. Future research in the form of a follow-up study is needed to explore the experiences of our learners more fully and have them elaborate about the specific AL activities they find beneficial, once they are more experienced with lecturing and AL.

## Conclusion

The 1st- and 2nd-year students in this study clearly indicated a preference for a more interactive-style approach to lecturing, with time allocated for discussion and consolidation of their understanding of the lecture content amongst peers. Reasons given for this preference by students are that an interactive approach is more conducive to learning, more interesting, and that more involvement in class means a reduction of such common problems as student fatigue, apathy, and poor retention of lecture content that all too frequently plague university lectures in Japan. Future research will be conducted to investigate the perceived effectiveness of such approaches.

## Bio Data

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## Appendix Survey on Lectures

1. I think that lectures are a useful way to learn. (Circle one answer)

Strongly agree 非常に同意する	Agree 同意する	Somewhat agree いくらか同意する	Somewhat disagree それほど同意しない	Disagree 同意しない	Strongly disagree 非常に同意しない
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The reason(s) I think so are because...

Some ways that lectures can be made more useful are...

2. I think that lectures are an interesting way to learn. (Circle one answer)

Strongly agree 非常に同意する	Agree 同意する	Somewhat agree いくらか同意する	Somewhat disagree それほど同意しない	Disagree 同意しない	Strongly disagree 非常に同意しない
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The reason(s) I think so are because...

Some ways that lectures can be made more interesting are...

3. I prefer the following (circle one answer):

- 90-minute lecture
- 40-minute lecture + 5-minute discussion, x2
- 25-minute lecture + 5-minute discussion, x3
- 10-minute lecture + 5-minute discussion, x6
- Other:

I prefer this answer because...

4. Write any other comments you would like to share about lectures as a way to learn.

Thank you!

*Note.* The Appendix survey results are part of a larger longitudinal project and build on the work established in an earlier pilot study (see Deacon, 2019).