

What is an Appropriate Style for Academic Presentations by Scientists?

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Abstract

To facilitate effective international scientific communication, scientists need to master skills and knowledge on how to conduct academic presentations, especially in English. However, this becomes a greater challenge for the scientist whose native language is not English. In order to assist scientists in delivering effective presentations, the use of appropriate genre-specific language and sentence structures needs to be established. The objective of this study is to investigate what is an appropriate style for English academic presentations from the perspective of intelligibility for the audience. A total of 76 Japanese scientists working for a prestigious scientific institute were asked to listen to two presentations in English, and to evaluate the level of intelligibility by using a four-point Likert scale. The two presentations had the same topic, but were different in style: one had more features of spoken English, while the other used diction more like research articles written in English. A total of 76 sets of data were collected and statistically analyzed. The results indicated that an “open style” of presentation had a higher level of intelligibility.

Key words: academic presentation; scientists; intelligibility; open style; closed style.

Introduction

Scientists spend a great deal of their lives doing research and reporting their findings to the international audience of scientists (Ochs & Jacoby, 1997). For this purpose, they need to master various skills, one being how to conduct an academic presentation in English.¹ The ability to effectively present their findings is vital for them, and is an essential skill (Rowley-Jolivet & Carter-Thomas, 2005b), heightening a need for effective presentation training in various institutions. A survey of 1,000 undergraduate engineering students also revealed that non-native English speakers were, especially, in desperate need of training for academic presentations (Freeman, 2003).

As conducting academic presentations in conferences is highly specialized and demanding (Shalom, 2002), it becomes an even greater challenge especially for novice members of discourse communities. In countries such as Japan, however, training for giving academic presentations in English has yet to become common practice. This is perhaps why, notably at scientific conferences and seminars, we often find that non-native presenters simply read from

a prepared script, or recite one in English. In such cases, the speech often resembles a style found in scientific journals, and the presentation has the feel of a research paper. Speakers fail to differentiate the use of language in academic presentations and written work, perhaps being unaware that the two are different (Stephens, 1975; Ventola, 2002). Therefore, there is a concern that non-native English speaker scientists are at a disadvantage when participating in English-speaking conferences, being unable to make full use of such valuable opportunities to directly pass on their research findings to the audience (Shalom, 2002; Swales, 1990). We thus need to develop an effective training program for academic presentations in the English language, to help them establish their careers.

There are, however, fundamental problems that need to be addressed. First, specific knowledge on how to conduct a good academic presentation has not, at this point, been sufficiently accumulated. We have, in fact, yet to thoroughly identify what a “good academic presentation” is. This situation can lead to inappropriate styles of presentation conducted by non-native English speakers. Moreover, training for academic presentation is still rarely offered in academic institutions (Ventola, 2002), and although some programs for academic presentation are provided, they focus mainly on public speaking, offering advice such as encouraging eye-contact with the audience (Ventola, 2002). The use of genre-specific language and sentence structures appropriate for presentations thus need to be established. Further empirical research should be conducted in order to move away from the tradition of using written language during a presentation so that presenters can avoid leaving negative impressions on the audience.

In researching presentations, style has often been discussed (Stephens, 1975), and as previously mentioned, ESP (English for specific purposes) researchers have not thoroughly differentiated the styles of academic writing from academic presentation, when, in fact, the two genres have different demands on the use of language (Stephens, 1975; Ventola, 2002). Presently, most researchers (e.g., Chafe, 1986; Dubois, 1980; Hirooka, 2002; Rowley-Jolivet & Carter-Thomas, 2005a) consider that the discourse of presentations, as a genre itself, is a hybrid of written and spoken styles called “mixed style” (Grimshaw, 1989). In other words, it consists of both formal and informal characteristics (Dubois, 1980; Webber, 2005). The aforementioned styles are called “open” and “closed” styles respectively by Swales (2004), stating that the “open style” can be casual in its structures and involves hedging, modalization, and discourse markers (Swales, 2004), while the “closed style”, as a counterpart of the open style, uses diction more like the research articles.

One study which argues the inadequacy of the closed style for academic presentation, Rowley-Jolivet and Carter-Thomas (2005a), noted that native English speaker scientists (NS scientists) appear to adapt their usages of language, such as structures and grammatical subjects in response to the genre, but non-native English speaker scientists (NNS scientists) overuse structures suitable for research articles in giving presentations. It was argued that the behavior of the NNS scientists made it difficult for the audience to follow and process their oral discourse, and also reinforced the distance between the speaker and audience. However, Swales (2004) mentioned “I see nothing wrong in listening to presentations that have more features of a closed rather than an open style” (p.206).

There has been insufficient research to empirically identify that the open style is more

intelligible than the closed style of presentation for the audience. Furthermore, as Berkenkotter and Huckin stated (1995), in researching the genre, there are few studies on actual cases with members of discourse communities participating. In addition, the results of the genre studies are interpreted only by genre researchers, and the opinions of discourse community members' cannot be seen in those studies (Berkenkotter & Huckin, 1995). Likewise, the current research on discourse of academic presentations is restricted to the corpus-based approach such as that of Rowley-Jolivet and Carter-Thomas (2005a) and lacks an audience's perspective. However, since academic presentations have face-to-face interaction, it is inevitable for presenters to take into account the reactions from the audience (Nwogu & Bloor, 1991). As the presenters are constrained to care about the response from their audience, who are in position to evaluate their presentations, it becomes important for them to provide "audience-oriented" presentations (Webber, 2005).

In this article, the authors would like to investigate whether there is a significant difference between the open style and the closed style presentations in terms of intelligibility when scientists actually listen to them as the audience. If results indicate that the closed style is more difficult to understand for the audience and the open style is more intelligible, it can be used as validation to persuade scientists who believe that writing papers and giving presentations could be done in the same manner.

Syntactic Appropriacy for Academic Presentation

In this section, the syntactic features of scientific academic presentations in English is discussed focusing on open style vs. closed style differences (Rowley-Jolivet & Carter-Thomas, 2005a). As mentioned in the Introduction section of this article, many researchers seem to consider that the open style is appropriate for the academic presentation as a spoken genre. For example, Rowley-Jolivet and Carter-Thomas (2005a) compared the syntactic behavior of a group of NS with that of NNS scientists in academic presentations at conferences to examine whether NNS scientists' choices of syntactic structures are appropriate for presentations as a spoken genre. The data consisting; a double set of 9 oral conference presentations, and the 9 corresponding proceedings articles, by NS and NNS scientists were used in the study. The specialized structures considered typically used in speech (e.g., pseudo-clefts and inversion) and in research papers (e.g., passives and extra-position) were then taken up from the data of the presentation corpora, and occurrences of these structures in NS scientists' presentations and NNS scientists' presentations were then compared. The data were analyzed from the perspective of information structure, which argues that "information packaging" (p.42) is fundamentally influenced by the difference between writing and speech (Chafe, 1986; Dubois, 1980; Halliday, 1989). They also identified a trend that NNS scientists tend to lean towards the written style in presentations and expressed concern that the presentation style of NNS scientists, or the closed style, can have a negative impact on their presentations in terms of communicative purposes. They thus recommend that scientists should use the open style for the academic presentations.

As mentioned in the introduction, however, their assertion has a major limitation. They drew the conclusion not from the judgment of the audience but from the authors' interpretation of the corpus data. Therefore, it should be empirically investigated in this

article if there is a significant difference between the open style and the closed style presentations from the perspective of intelligibility for the audience.

Intelligibility

According to Yamane (2006, p. 62), in his phonetics study, “there are two notions conflicting with each other; one is aiming to move toward so-called native-like pronunciation, and the other is to pursue intelligible pronunciation allowing foreign accent” (authors’ translation). Levis (2005) calls the former the “nativeness principle” and the latter the “intelligibility principle” and stated that the intelligibility principle has become a mainstream in teaching foreign/second language pronunciation.

(Munro & Derwing, 1999) stated that intelligibility and comprehensibility² are frequently used as the essential aspects to be measured in phonetics studies. They defined intelligibility as “the extent to which a listener actually understands an utterance” and comprehensibility as a listener’s perception of how difficult it is to understand an utterance. In this article, however, we defined intelligibility as the extent to which a listener “can easily understand” (Hornby, 2000).

There are subjective and objective approaches to assess intelligibility. Some types of rating scale are often used for judgments in a subjective approach and rewriting or rephrasing is employed (Fayer & Krasinski, 1987). It is also noted that many factors such as phonology and syntax, affect intelligibility (Fayer & Krasinski, 1987). In this study, in order to examine if there is a significant difference between the open style and the closed style in terms of intelligibility, the authors chose to use a rating scale to reflect the audience perspective.

Purposes

The objectives of this study are 1) to examine if there is a significant difference between the open style and the closed style academic presentations in terms of intelligibility, and 2) to identify which style is more intelligible for the audience of scientists. To assess the intelligibility of the two types of presentations, the authors asked the participants to listen to the audio files of two presentations and evaluate their intelligibility on a four-point Likert scale. This is the same method which Fayer and Krasinski (1987) and Palmer (1976) employed to assess intelligibility of the English spoken by ESL students.

The scripts for the open style and the closed style were created based on the criteria shown in Table 1. Those criteria were taken from Rowley-Jolivet and Carter-Thomas (2005a). Table 1 shows the occurrences of specialized structures, the usages of subjects such as *you*, *we*, and *I*, and clause length both in NS scientists’ presentations and NNS scientists’ presentations. The specialized structures in Table 1 are typical structures used in either the spoken genre or the written genre, such as “passive”, “extra-position”, inversion”, and “pseudo-cleft”. The script for the open style presentation was created referring to the percentages in Table 1 of “Native (NS scientists), while that for the closed-style presentation was created referring to the percentages of “Non-native (NNS scientists)”. (See Table 1 for the percentage of each feature). Although we were unable to come up with the scripts with percentages that matched exactly those of the Rowley-Jolivet and Carter-Thomas study (2005a), they were written to be as close as possible³ of the percentages reported in the study.

The two scripts were recorded by a native English-speaking male Canadian, and two digital audio files were created. Due to an agreement of confidentiality with the participating institution, the script of this presentation cannot be disclosed. Table 2 shows some examples of the comparison of the open and closed styles used in the two scripts for this study.

Table 1

Occurrences of Specialized Structures, Subject pronouns and Average clause length in NS and NNS Scientists' Presentations (Percentages are in relation to the total number of clauses)

	Passive	Extra- position	Inversion	Pseudo- cleft	you	we	I	Clause length
Native (NS scientists)	8.3%	0.4%	3.0%	1.4%	10.8%	15.9%	9.4%	9.5W
Non-native (NNS scientists)	17.1%	1.5%	1.6%	0.0%	2.7%	24.0%	5.5%	12.4W

Created by the authors based on the tables appeared in Rowley-Jolivet & Carter-Thomas (2005a)

Table 2

Example of the Comparisons of the Open and Closed Styles Used in the Two Scripts

<i>Open style</i>	<i>Closed style</i>
We need further analyses in other species to confirm any PPP difference between XXX and WWW.	Further analyses in other species are needed to confirm any PPP difference between XXX and WWW.
If you have a BZ-5 in any of the components making up the EFG, you will have OPQ in SS-3 cell division.	A BZ-5 in any of the components making up the EFG can cause OPQ in SS-3 cell division.
The CL-1 transmits signals from TPL factors to PN.	Signals are transmitted from TPL factors to PN by the CL-1.
We conducted RS-1 analyses and EX using SSS deletion NM and found that these components have an almost identical role.	RS-1 analyses and EX using SSS deletion NM showed that these components have an almost identical role.

Method

Materials

The scripts for the open style and closed style presentations for this experiment were created based on the authentic presentation script presented in the seminar held in a large-scale and prestigious science institute in Japan (henceforth, the XYZ, pseudonym). The percentages of the specialized structures, the usages of subjects, the average of clause length, and the total number of clauses for the two scripts are shown in Table 3. The original script was revised by the authors to create two types of scripts, the open style and the closed style, referring to the results of Rowley-Jolivet & Carter-Thomas' results. It should be noted that as the two scripts created for the experiment were 4 minutes in length, the number of phrases in both were low: 51 in the open style, and 41 in the closed style. Subsequently, if the number of

extrapositions, inversions and pseudo clefts in the scripts were to be increased even only once respectively, then there would be an increase of 1.4~2.5%. Therefore, in order to remain close to the percentages of Rowley-Jolivet, E., & Carter-Thomas, S. (2005a), it was not possible to realize a large difference in the above three elements in the two scripts. Actually, the percentage gaps of these three elements in Rowley-Jolivet, E., & Carter-Thomas, S. (2005a) are also small as a percentage value.

Table 3

Occurrences of Specialized Structures and the Subjects in the Open and Closed Style Presentations for this Experiment

	Passive	Extra - position	Inversion	Pseudo-cleft	you	we	I	Clause length	Total number of clauses
Open style	5.9%	0.0%	2.0%	2.0%	11.8%	15.7%	7.8%	8.4W	51
Closed style	17.1%	0.0%	2.0%	2.4%	2.4%	2.4%	4.9%	9.9W	41

Note. Figures were rounded after the second decimal fraction

The created scripts of the open and closed style presentations were examined and corrected by two native English teachers so that the usages of English in those scripts were reliable. One is a Canadian male who graduated from Richmond International College, while the other is an Australian graduate of the University of Western Sydney. Both have been teaching English at English conversation schools in Japan and have been an ALT (assistant language teacher in secondary schools) in Japan for several years.

Speakers and Audio Files

The two scripts were read by a native English-speaking male Canadian and were converted into digital audio files. He was asked to read each script at the same rate of speed and in the same tone. He tried several times to meet the requested recording time that was defined in proportion to the number of the words of each script. Details of the audio file are shown in Table 4. As shown in Table 4, the number of pauses and the average number of words between pauses for the two readings were not significantly different, thereby proving the effects of pauses were controlled in this study.

Table 4

Total Number of Word, Number of Pauses, Words in Pauses, Duration of Presentation and Speech Rate in Two Audio Files

		Total number of words	Number of pauses	Average number of words between pauses	Duration of presentation (min)	Speech rate (word per minute)
Audio File 1	Open style	430	62	5	4.16	101
Audio File 2	Closed style	405	49	5	4.05	101

Note. Figures were rounded after the first decimal fraction for speech rate

Evaluation Sheet

A set of evaluation tools was created to subjectively measure the intelligibility of the open style and the closed style presentations. The evaluation consists of a prior explanation sheet and two Evaluation Sheets:

- 1) A Prior explanation sheet (see Appendix A)
- 2) Evaluation Sheet A, used to evaluate the intelligibility of Audio file 1, which consists of an open style presentation in Sessions 2 and 3 and a closed style presentation in Session 1 (to be described on pp.13–14)
- 3) Evaluation Sheet B, used to evaluate the intelligibility of Audio file 2, which consists of an open style presentation in Session 1 and a closed style presentation in Sessions 2 and 3.

In the above-mentioned 2) and 3), a four-point Likert scale was used; namely “1: strongly unintelligible, 2: unintelligible, 3: intelligible, 4: strongly intelligible”. The meaning of the 4 categories are equal to: “1: unintelligible, 2: difficult to follow, 3: reasonably intelligible, 4: highly intelligible”, and such an explanation was given to the participants prior to the experiment. There was also an open space to describe what they noticed in terms of syntax, structure, phonetic features, and so forth in each presentation. In addition, a question concerning their degree of background knowledge of the presentation topic is included with a Likert scale ranging from “1: do not know at all to “4: know well” (see Appendix B).

Participants

The experiment was conducted at the beginning of the academic presentation seminar that the first author had conducted at the XYZ (pseudonym). Approximately one hundred to one hundred and fifty seminars including luncheon forums and international symposiums are held in the XYZ every year. Most of the presentations are conducted in English by the scientists there or invited speakers from other domestic or overseas institutions. Thus, all the researchers at the XYZ have plenty of opportunities to participate in academic conferences and seminars as audience or a presenter of academic presentations in English. The majority of researchers at the XYZ are Japanese, but there are many researchers from overseas who work there as well. Meetings and daily conversations, therefore, are often held in English.

The group of participants who took part in the study was made up of 76 researchers from various laboratories at the XYZ. The seminar consisted of 114 participants in total, and they were divided into three groups, Sessions 1, 2 and 3, due to limitations of classroom capacity. In order to avoid the effects of the order of listening, as shown in Table 5, in Session 1, a closed style presentation was played as audio file 2, and subsequently an open style presentation was played from audio file 1. In Sessions 2 and 3, the two tapes were played in reverse order to Session 1.

Data from the three sessions were then merged into two groups to conduct the Matched-pair *t*-test. Although there were 40 participants in Session 1, two failed to submit an evaluation sheet, so consequently 38 evaluations from the session were analyzed and categorized as Group 1. Group 2 consists of 38 randomly selected evaluations from Session 2 (15) and

Session 3 (23).

Table 5

Order of Listening, Number of Participants in Three Sessions

	Order of listening		Number of participants	Amount of selected data	Total amount of selected data	
	First listening	Second listening				
Session 1	Closed style	Open style	40	38	38	Group 1
Session 2	Open style	Closed style	32	15	38	Group 2
Session 3	Open style	Closed style	42	23		

Procedure

The evaluation sheet was distributed at the beginning, and the participants were asked to listen to the two audio files: audio file 1 (an open style presentation) and audio file 2 (a closed style presentation). The two audio files were played only one time and the length of each audio file was about four minutes. As a special note on the evaluation, they were instructed to evaluate not how much they understood the presentations themselves, but rather how easy they were to comprehend. The participants were informed that the topic of the presentations, anonymously “C-complex” which belongs to cell biology, and the speaker who gave the presentations were the same in the two materials. Before listening to audio file 1, the self-introduction of the speaker was played one time to have the participants get accustomed to his voice. After listening to one presentation, they were asked to evaluate the intelligibility of each presentation using a Likert scale. Additionally, they were asked to describe what they had noticed in terms of syntax, structure, and phonetic features when listening to the presentation. They were also asked to inform us of their degree of knowledge on the presented topic on the evaluation sheet. As intelligibility may be related to the participants’ research background, they were asked to judge their knowledge of the presentation topic by themselves using a Likert scale ranging from “1: do not know at all” to “4: know well”. After evaluating audio file 1, they listened to audio file 2 with the same procedure⁴. After the seminar, a follow-up questionnaire was distributed (see Appendix D) and they were asked to evaluate their comprehensive English ability by themselves with a four-point Likert scale ranging from “1: high” to “4: low”. The self-reported scores of their English proficiency were examined by *t*-test (see Tables 7 and 8), and it was found that there seems to be no difference in English proficiency between the two groups.

Data Analysis

The matched-pair *t*-test was conducted with *Excel* using the data of Group 1 and Group 2 to find out if there was a significant difference of intelligibility between open style and closed style presentations and which style of presentation was more intelligible for an audience of scientists. Furthermore, the rating values of their background knowledge and English ability were tested by independent *t*-test.

Results and Discussion

As shown in Table 6, the result of the *t*-test clearly indicates a significant difference in intelligibility between open style and closed style presentations. It is also identified that the open style presentation is more intelligible than the closed style presentation. In Rowley-Jolivet and Carter-Thomas (2005a), it was only speculated, but it has now been verified by the results that the open style is more appropriate in terms of intelligibility when giving a presentation.

Table 6

Results of Matched-pair t-tests for Intelligibility of the Two Presentations

	N (Group 1+ Group 2)	M	S.D.	<i>df</i>	<i>t</i> -value	<i>p</i> -value	<i>r</i>
Intelligibility of closed style	76	2.92	0.74	75	-2.90	0.005	0.32
Intelligibility of open style	76	3.22	0.67				

Note. Figures were rounded after the third decimal fraction

* $p < .001$ (adjusted by using Bonferroni Procedure)

In order to consolidate the result of the matched-pair *t*-test, the results of two independent *t*-tests are shown in Tables 7 and 8. Table 7 shows the number of samples, means, and standard deviations, degree of freedom, *t*-value, and *p*-value of the two groups in their background knowledge of the presentation topic. Table 8 shows that of the two groups in their self-evaluated English proficiency. From the results of two independent *t*-tests, there was not a significant difference between the two groups. Even though this result was based on their own judgments, it can be said that both their background knowledge and English proficiency did not seem to affect the results obtained.

Table 7

Results of Independent t-test for Background Knowledge of the Two Groups

	N	M	S.D.	<i>df</i>	<i>t</i> -value	<i>p</i> -value	<i>r</i>
Group 1	36	1.37	0.54	61	-1.57	0.12 (n.s.)	0.20
Group 2	38	1.60	0.88				

Note. Figures were rounded after the third decimal fraction

n.s. = not significant

Table 8

Results of Independent t-test for Self-evaluated English Proficiency of the Two Groups

	N	M	S.D.	df	t-value	p-value	r
Group 1	36	1.88	0.60	72	1.33	0.19 (n.s.)	0.16
Group 2	38	1.66	0.78				

Note. Figures were rounded after the third decimal fraction

n.s. = not significant

Besides the evaluation of intelligibility between the two presentation styles, the participants were asked to write brief comments on grammar, structure, phonetic features, and so forth. The following are representative examples (Translation ours):

Comments on the open style presentation

Group 1

1. *"We" and "You" were often used as a subject. Compared to the prior presentations, the open style seemed closer to the colloquial style.*
2. *The active voice was prominently used in the speech*
3. *It was easier for me to understand this speech than another speech I listened to. Easy to pick up the highlights and main points of the speech.*

Group 2

1. *Personal pronouns were frequently used, which gives positive impressions.*
2. *Grammar and sentence structure used in the speech were plain and easy to understand.*
3. *The use of first person pronoun, active voice, and short sentence structure was noticeable.*

Comments on the closed style presentation

Group 1

1. *Written article style was used with inappropriately difficult words.*
2. *The speech was styled like a scientific paper. Passive voice was used often.*
3. *Without the use of presentation slides, the speech may be difficult for me to understand.*

Group 2

1. *Compared with the prior presentations, longer sentences seemed to be used in this speech.*
2. *Many sentences were written in the passive voice. The length of main clauses was longer than the prior presentations.*

3. The speech felt as if he were reading a paper.

Based on these comments, we can conclude that the open style presentation seems to be much easier for the participants to understand; Many of the participants came to notice the use of personal pronouns as subjects and the prominent use of the active voice. Some even commented that the open style gave them positive impressions, which is in line with the argument stated in Rowley-Jolivet and Carter-Thomas (2005a). As for the closed style, many of the participants commented that the speech was styled like a scientific paper, or that they had felt as if the speaker were reading a paper and that it was difficult for them to understand without the presentation slides. This seems to support the notion that the closed style is less suitable for a presentation.

Interestingly enough, the mean of their self-evaluated English proficiency in Table 7 was 1.88 out of a possible 4.00 for Group 1 and 1.66 for Group 2, which seems to be rather low. However, there were a lot of comments accurately describing the difference between the open style and the closed style presentations. This might be because the participants underestimated their actual English proficiency.

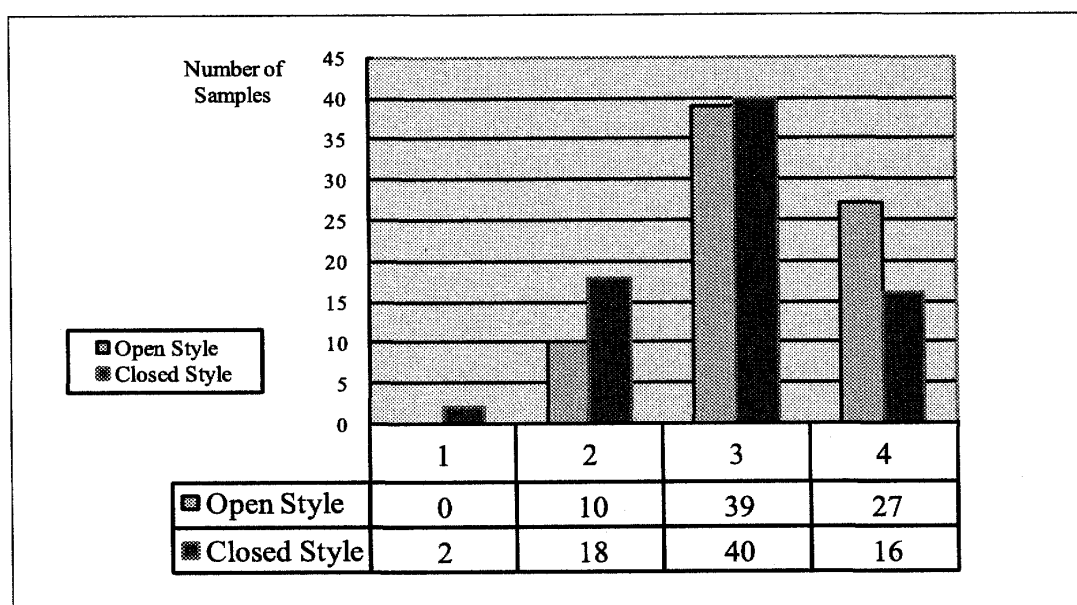


Figure 1. Frequency distribution of participants' rating for intelligibility on open and closed presentations (Range of the value: 1–4).

Some participants did state that they were unable to find any differences between the two styles or did not leave any comments at all. Seeing the results of the *t*-test of intelligibility, however, it can be interpreted that they may have been unconsciously aware that the open style presentation was more intelligible.

Moreover, Figure 1 shows that the frequencies of the rating value “3” which means “intelligible” are almost identical between the two speeches. However, there is nearly a two-fold difference between the frequencies of the rating value “2” which means “unintelligible” for the open style and the closed style presentations. Furthermore, the frequency of the rating

value “4” for open style is much higher than that of the closed style. Considering these findings, it can be said that the open style presentation is more intelligible than the closed style presentation.

Lastly, some of the participants commented that the speech rate of the open style presentation was slightly faster than that of the closed style presentation although the speech rates in the open style and closed style were 101/m (see Table 4), which are the same.

Limitations

As a limitation of this study, the authors should point out that all the evaluators who participated in this study were Japanese scientists. If the evaluators had been native English speakers, as Swales (2004) stated, the two speeches, open and closed style presentations, might have been indifferent for the audience, or the closed style presentation might have been perceived as simply pedantic. Further, a normal conference presentation is usually 15–20 minutes in length. However, in this paper, the length of the presentation used in the experiment was 4 minutes; therefore, it is considered that this duration might have an effect on the results. In light of this, it is most likely necessary to conduct studies on 15–20 minute speeches in our future research. Finally, in this study, focus was placed on linguistic features and so it was not considered necessary to investigate the effect of the use of slides. However, we recognize that slides are often used in actual presentations along with extra linguistic features, such as body language, which are also necessary to facilitate the intelligibility of the presentation. Therefore, if these aspects were included in the presentations used in this study, it is possible that different results may have been obtained. Further investigation is required on the differences in NS and NNS presentations.

Conclusion

We found that the open style presentation is more intelligible than the closed style presentation for the audience of scientists. It can be said, therefore, that the open style presentation is more suitable for academic presentations in terms of intelligibility. Additionally, it should be noted that use of the open style presentation has another benefit. Although open style does not mean having a casual conversation with the audience (Chafe, 1986), it can make their presentation more communicative and helps the presenter to build a good relationship with the audience (Rowley-Jolivet & Carter-Thomas, 2005a; Webber, 2005).

For scientists, “articles” have been a major reference for giving a presentation (Dubois, 1980). It is, however, important in ESP education to teach students to recognize that 1) the language use in academic presentations differs from academic writings, and that 2) academic presentations belong to a spoken genre. When giving a presentation, most of the speakers write speech scripts; probably this action of conveying their thoughts into written scripts inevitably makes the speech resemble the style of academic papers. The important element in teaching students thus is to write a script in spoken language as if they were speaking it and to keep it in mind that the output of the script will be not a paper but a presentation.

In sum, the effective teaching of scientific academic presentations requires the following:

1. Let students know the particular differences between spoken grammar and written

grammar;

2. Encourage the use of inversion, pseudo-clefts, active voices, and personal pronouns;
3. Discourage the overuse of the typical sentence structures used in a scientific paper, such as passive voice, and extra-position; and
4. Encourage students to use personal pronouns for sentence subjects although subjects of scientific presentations tend to be inanimate entities.

In order to make a presentation easy for the audience to understand, conducting it in an open style can be one of the important elements to be taught.

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Notes

1. The definition of academic presentation in this article is a presentation that is given in English by scientists and/or science and engineering students in scientific/medical conferences or seminars including those held in external, internal, and international settings. The Q & A sessions are excluded from the definition of academic presentation in this article.
2. "Comprehensibility", another scale for measurement, is not covered in this article.
3. The definition of the "closed style presentation" in this article is "a presentation that has more diction of research articles, but the percentage of the use of 'we' in Table1 for "Non-native" was rather high. As this is considered to be not appropriate for the definition of the closed-style presentation, the percentage of the use of 'we' for the closed-style presentation script was taken from the average of the use of 'we' in the scripts that were given by researchers of the anonymous institution.
4. When listening to audio file 2, the self-introduction was not played.

References

- Berkenkotter, C., & Huckin, T. N. (1995). *Genre Knowledge in Disciplinary Communities: Cognition/Culture/Power*. Hillsdale: Lawrence Erlbaum Associates.
- Chafe, W. (1986). *Academic speaking*. Paper presented at the Proceedings of the 12th annual meeting of the Berkeley linguistics society, Berkeley.
- Dubois, B. L. (1980). Genre and structure of biomedical speeches. *Forum Linguisticum*, 5, 140–169.
- Fayer, J. M., & Krasinski, E. (1987). Native and nonnative judgements of intelligibility and irritaion *Language learning*, 37, 313–326.
- Freeman, J. (2003). The science of conversation: Training in dialogue for NNS in engineering. *IEEE Transactions On Professional Communications*, 46, 157–167.

- Grimshaw, A. D. (1989). *Collegial discourse : professional conversation among peers*. Norwood, NJ: Ablex.
- Halliday, M. A. K. (1989). *Spoken and written language* (2nd ed.). Oxford: Oxford University Press.
- Hirooka, N. (2002). *Rikakei no tameno Jissen Eigo Presentation*. Tokyo: Asakura Syoten.
- Hornby, S. A. (2000). *Oxford advanced learner's dictionary* (6th ed.). Oxford: Oxford University Press.
- Levis, J. M. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *TESOL Quarterly* 39, 369–377.
- Munro, J. M., & Derwing, T. M. (1999). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning* 49, 285–310.
- Nwogu, K., & Bloor, T. (1991). Thematic progression in professional and popular medical texts. In E. Ventola (Ed.), *Functional and systemic linguistics: Approaches and uses* (pp. 369–384). New York: Mouton de Gruyter.
- Ochs, E., & Jacoby, S. (1997). Down to the wire: The cultural clock of physicists and the discourse of consensus. *Language in Society*, 26, 479–505.
- Palmer, J. (1976). *Linguistic accuracy and intelligibility*. Paper presented at the Proceedings of the 4th international Congress of Applied Linguistics, Stuttgart, Germany.
- Rowley-Jolivet, E., & Carter-Thomas, S. (2005a). Genre awareness and rhetorical appropriacy: Manipulation of information structure by NS and NNS scientists in the international conference setting. *English for Specific Purposes*, 24, 41–64.
- Rowley-Jolivet, E., & Carter-Thomas, S. (2005b). The rhetoric of conference presentation introductions: context, argument and interaction. *International Journal of Applied Linguistics*, 15, 45–70.
- Shalom, C. (2002). The academic conference: A forum for enacting genre knowledge. In E. Ventola, C. Shalom & S. Thompson (Eds.), *The Language of Conferencing* (pp. 51–68). Frankfurt: Peter Lang.
- Stephens, J. (1975). Rhetorical problems in Renaissance science *Philosophy and rhetoric*, 8, 213–229.
- Swales, J. M. (1990). *Genre Analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
- Swales, J. M. (2004). *Research Genres: Exploration and Applications*. Cambridge: Cambridge University Press.
- Ventola, E. (2002). Why and what kind of focus on conference presentations? In E. Ventola, C. Shalom & S. Thompson (Eds.), *The Language of Conferencing* (pp. 15–50). Frankfurt: Peter Lang.
- Webber, P. (2005). Interactive features in medical conference monologue. *English for Specific Purposes*, 24, 157–181.
- Yamane, S. (2006). *Some characteristics of Japanese EFL learners' utterances and their phonetic features: Observations from a psycholinguistic perspective*. Unpublished doctoral dissertation, Kansai University.

Appendix A. Prior explanations for the evaluations

1. You are going to listen to two presentations in English: Presentation A and Presentation B. Please evaluate the “intelligibility” of each presentation.

Note 1: You will hear both Presentation A and Presentation B only once.

Note 2: Both Presentation A and Presentation B are approximately 4 minutes long.

Note 3: When you evaluate the presentations, please concentrate on the intelligibility of the presentations, and not on how much information you gained.

2. The presenter, topic, and context are the same in both presentations (Topic: C-complex)
3. Before Presentation A, you will first hear a self-introduction by the presenter to get accustomed to the presenter’s English. Thus, this part is not included in the evaluation.
4. Following the self-introduction, you will hear Presentation A. Please evaluate the intelligibility of the presentation.
5. Next, you will hear Presentation B. Please evaluate the intelligibility of the presentation.

Note: there is no self-introduction part between Presentation A and Presentation B.

6. Now, we are going to pass out the evaluation sheet. Please write your name and the name of the department you belong to on the sheet.

*This evaluation of the presentations is not an English language test.

Appendix B. Evaluation Sheet for Presentation A

Evaluation Sheet: Presentation A

Name ()

Department ()

1. Now, please listen to Presentation A and evaluate its intelligibility.

2. Please circle one of the following ratings: 4) strongly intelligible, 3) intelligible, 2) unintelligible, and 1) strongly unintelligible.

	strongly intelligible	intelligible	unintelligible	strongly unintelligible
1. How intelligible was Pretentation A ?	4	3	2	1

2. Please describe the characteristics of the English used in Presentation A.

(Syntax, Structure)

(Phonetic features)

(Others)

	know well			did not know at all
3. How much do you know about the topic of the presentation?	4	3	2	1

Appendix C. Evaluation Sheet for Presentation B

Evaluation Sheet: Presentation B

Name ()

Department ()

1. Now, please listen to Presentation B and evaluate its intelligibility.

2. Please circle one of the following ratings: 4) strongly intelligible, 3) intelligible, 2) unintelligible, and 1) strongly unintelligible.

	strongly intelligible	intelligible	unintelligible	strongly unintelligible
1. How intelligible was Pretentation B?	4	3	2	1

2. Please describe the characteristics of the English used in Presentation B.

(Syntax, Structure)

(Phonetic features)

(Others)

Appendix D. Follow-up Questionnaire distributed after the Seminar

Questionnaire of English Academic Presentation (Translation ours)

Thank you for participating in the Academic Presentation Seminar. In an attempt to provide seminars that better suit your needs, please respond to the following questions. (Check the box that applies in each question and describe the reasons.)

Date		Name	
Name of Laboratory		Age	<input type="checkbox"/> Twenties <input type="checkbox"/> Thirties <input type="checkbox"/> Forties <input type="checkbox"/> Fifties

Note: This questionnaire consists of two pages (Front and back)

I. Today's seminar

A. Overall

- Good
 Fairly good
 Not entirely satisfied
 Unsatisfactory

(Reason)

B. Instructor

- Good
 Fairly good
 Not entirely satisfied
 Unsatisfactory

(Reason)

C. Programs

- Good
 Fairly good
 Not entirely satisfied
 Unsatisfactory

(Reason)

D. Describe the useful points from this seminar.

2. English ability in daily work

A. If you were to evaluate your own general English ability, what level on this scale would be appropriate? Circle the number that applies.



B. Would you like to receive training for academic presentations?

Answer () Yes No

3. English Presentations from this seminar

A. (Please answer if you answered Yes in 2-B.) What kind of training for English presentations would you like to receive from now? Please be specific. You can write as much as you would like.

B. What do you feel are your weaknesses in terms of doing an English presentation?

C. What points would you like to improve for your own English presentations?

D. Do you know about "Presenter's tool" in PowerPoint (or Key Note in Mac)?

Answer () Yes No

E. (Please answer if you answered Yes in D). How well can you use "Presenter's tool" in PowerPoint?

F. How long do you usually take to prepare for a English presentation?

G. How much time do you spend rehearsing?

H. What kind of practice do you do specifically for an English presentation?

I. What kinds of measures do you take to ensure that your presentation is within the given time limit?

4. If you have any requests, such as skills you would like to learn in the future, please write here.

Thank you for your cooperation. Please leave the questionnaire sheet on your desk.