Multiliteracies for Student Presentations

Marc Jones
Toyo University

Reference Data:

Jones, M. (2024). Multiliteracies for Student Presentations. In B. Lacy, P. Lege, & P. Ferguson (Eds.), *Growth Mindset in Language Education*. JALT. https://doi.org/10.37546/JALTPCP2023-25

Student presentations are an integral part of classroom work and teachers' assessment practices. However, student presentations often lack effective visual representations of data such as charts, graphs, and multimedia. Greater literacy in data presentation benefits both students and teachers. Students gain effective communication skills, while teachers find novel student work more engaging than conventional presentations. Using a theoretical framework derived from the pedagogy of multiliteracies (Cope & Kalantzis, 2009) and multimodality (Ravelli & van Leeuwen, 2018), this article explores ways to integrate data literacy with examples from the author's own class. A wider variety of ways to teach data presentation skills are given in order to begin exploring multiliteracy pedagogy and to assist students with more academically appropriate presentations.

学生のプレゼンテーションは、授業に不可欠なものであり、教師による評価にも欠かせないものである。しかし、学生のプレゼンテーションには、図表やマルチメディアのような、データの表示に最も効果的な視覚的表現が使用されていない場合がある。データ・プレゼンテーションのリテラシーを高めることは、学生と教師の双方にとって有益である。なぜなら、学生にとっては効果的なコミュニケーションスキルが身につく一方、教師にとってはそれが斬新なものであればあるほど興味が増すからである。本稿では、マルチリテラシーの教育学（Cope & Kalantzis, 2009）とマルチモーダリティ（Ravelli & van Leeuwen, 2018）から導き出された理論的枠組みを用いて、データリテラシーを統合する方法を、筆者自身の授業での事例を交えて探る。マルチリテラシー教育法の探求を始め、学生が学術的に適切なプレゼンテーションを行えるよう支援するためのスキルを教える多様な方法を提示する。

Presentations are a staple of university English assessment, and perhaps as a result, are also becoming a greater part of the high school teaching and learning landscape. Many of the presentation skills books aimed at the ELT community are based around very simple topics, and as a result, English presentation skills education at the university level does not adequately prepare learners to present information in a manner that is appropriate to either academia or business. In this article, the background to these inadequacies is explored, and some solutions provided, which I have arrived at after five years of teaching presentation skills courses as part of English medium instruction (EMI) curricula at universities targeting students at approximately A2-B2 levels. Multiliteracies are explained and proposed as a method to ensure readiness for EMI education; the advantage of multimodality in student presentations is described,

Some of the commercial texts available for presentations in English language teaching contain overly general content that appears to be marketed for wide appeal but fails to meet the needs of learners. Such books are aimed at adults and young adults, and they appeal to administrators of high school and university-level courses by promising that presentation skills will be developed. Unfortunately, in my experience, by attempting to appeal to such a broad audience, the product is unsatisfactory for actual learner needs. The topics covered are usually extremely general, such as a person to be admired, personal possessions or one's hobbies and interests. However, in most settings outside of language classes, there is no need to speak at length on such topics, let alone provide presentations on them. Furthermore, such insufficient content has led to time spent dealing with questions around textbook content related to carrier topics, or dealing with how to spend a sufficient amount of time presenting on a simple prescribed topic which is confusing due to a lack of scope. It then falls to teachers to find effective workarounds for the book in order for presentations to have any educational value.While the ELT books available that claim to be courses in presentation skills but provide tasks far removed from academic and workplace realities, the books on presentation and/or slides that are available, and which are ostensibly aimed at business professionals, do not tackle any particular topics but simply provide foundational approaches to presentations. Duarte (2008) covers graphic design in depth and does not really touch on how to actually present information verbally, whereas Duarte (2010) provides a comprehensive structural framework for narrative presentations but which is perhaps too complex for

single university courses. Finally, Reynolds (2012) has more of a balance between the graphic design and verbal presentation elements, but is somewhat dense, and therefore is more suited for teacher information and reference than for students to attempt to follow.

Clearly a middle ground is needed between the general ELT books that may not suit mature presentations, and the general presentation literature that is somewhat too deep for readers in an additional language. What is likely to happen in the real world is a reliance on an ELT textbook as a structure for the course, which leads to learners over-relying on these as a resource, and then producing overly simple presentations. To remedy this, it would be more useful for teachers to provide tasks for students, and synthesise key information on presentations for their classes instead of using materials that are too far removed from reality or have an unwieldy amount of information. While the presentation manuals are full of useful information, usage demands teacher mediation of principles from these more technical texts, which in turn demands considerable planning, both in advance, and regarding reactions to student content creation in the classroom.

This article explains the relevancy of multiliteracies pedagogy (New London Group, 1996; Cope & Kalantzis, 2009) to teaching presentation skills, then examines the relevancy of multimodal data to student understanding of information and its use in presentations. Next, a rationale for practical learning is provided, then the teaching activities in the presentation course are described. Finally, a brief conclusion is given regarding the importance of this approach, as well as its limitations.

While data literacy is the focus of this article, the principles of slide design, such as colour theory, typography and information hierarchy (Duarte, 2008; Reynolds, 2012), as well as narrative flow (Duarte 2010) were also instructed because these aspects are foundational to good practice in presentations. However, data literacy is overlooked, perhaps due to language teachers' natural tendency to stick to language adjacent content. Thus, while the focus of this article is data literacy, visual and narrative literacies are also essential for preparing and giving presentations and were also taught during the course that forms the basis of this paper.

Multiliteracies

"Multiliteracies" is an educational buzzword. Literacy is an assumed good, "multi" means there is an abundance, ergo multiliteracies are better than literacies. In fact, the concept refers to the ability to understand information across various media and modalities (e.g., written text, recorded video, etc.).

Within universities, particularly those offering English medium instruction (EMI) courses, and even after graduation, presentation of technical data may be necessary: students are operating within higher education, after all. However, to what extent are the literacies necessary for presenting data being taught effectively? In the liberal arts and humanities sector, students can be reluctant to engage with quantitative information beyond a superficial level, and arguably this is a result of siloing other academic subjects from English at previous educational levels. It may also be the case that most students are ill equipped to deal with EMI at an appropriate academic level due to the lack of CLIL and/or integration of English for Academic Purposes into the high-school curriculum (Aizawa & Rose, 2020).

One way to deal with the problems encountered by students who have been inadequately prepared at previous educational levels is to use a pedagogy of multiliteracies (New London Group, 1996). Multiliteracies focus not only on reading and writing skills but also on literacy in many areas, such as cultural literacy (O'Byrne & Smith, 2015), narrative literacy (Buendgens-Kosten, Conillie & Sauro, 2023), information/data literacy (Pangrazio & Selwyn, 2018) and communication literacy (New London Group, 1996). Obviously, information literacy and communication literacy are important to presentation skills, and therefore such courses are logical places to integrate multiliteracies teaching. In doing so, teachers can address learner problems not only at the micro level (specific to presentation skills), but also across the meso (English language curriculum) and even potentially towards the macro level (related to the university curriculum as a whole). Because learners gain skills that are likely to prove useful after they graduate from their universities, this type of approach provides a high return on investment.

The reason for use of multiliteracies is not only development of skills for the neoliberal workplace (although, arguably, this is important to many of our students) but to enable development of personal skills: "a person comfortable with themselves as well as being flexible enough to collaborate and negotiate with others who are different from themselves in order to forge a common interest" (Cope & Kalantzis, 2009, p. 174). Conveying information clearly and effectively makes it much easier to engage an audience of peers and forge common interests. As students engage more deeply in academic communication norms, a community can form based upon common interests (such as the academic discipline or sub-discipline) and the way those interests are pursued, a phenomenon documented in the research on communities of practice (Wenger, 1998). Additionally, not only are multiliteracies important in the learning process, but also assessment processes are frequently multifaceted. Essays and exams

are not the only types of assessment for students but discussions, role plays, and presentations are used. The skills required for presentations, however, may feed into all the other assessments due to skills in written and spoken rhetoric as well as the information literacy and synthesis across different modalities.

Multimodality

Ravelli (2018) notes that through their interrelation, manipulation of text, image, colour, and arrangement in space can change the relations of importance of information through changing its salience. Ravelli and van Leeuwen (2018) comment that due to the proliferation of digital technology and the digitally-viewed media, digital technology users have more agency to not simply consume but actually reconstruct media into other forms, without gatekeeping through "institutionally-ratified, genre-related normative practices" (p. 289), or being somewhat censured for not being sufficiently "academic" in their language or use of multimedia. In other words, there are many students who are already adept at photo manipulation, captioning, condensing and editing text through practice in their digital social lives outside of class work. However, learning to produce multimodal presentations allows these practices to be more formalised and developed. By implementing skills and media literacies to comment, choose and make salient examples, and further critically engage with the media they use, students exercise agency and supplement English speaking skills with appropriate supporting media.

Paivio and Clark's (1991) theory of dual coding posits that by providing visual information with auditory information, connections are present between verbal information and other sensory information, and that these connections can be created by presenting sensory (usually, but not necessarily visual) information at the same time as verbal information. This means that through multimodal presentations, students can learn information from not only teaching staff but also peers, which is the main point of academic presentations. Through watching presentations and learning about good practice and presentation skills, students can consider examples and make aesthetic judgements about how information is conveyed. They can then apply their content and skills knowledge, which aids them in showing their own learning effectively, and evaluate how clearly they have conveyed key conceptual ideas to peers. The literacy required to understand a presentation thus feeds into the literacy required to give a presentation and reflections during and, after both of these actions, may help to improve academic performance.

Rationale for Practical Learning

First-time presentations are rarely the smoothly transitioning, well-rehearsed examples of oratory that are seen in TED Talks, and students may be disappointed with their early attempts. Creating a positive atmosphere for developing the skills and literacies required is therefore paramount. It is therefore necessary to provide opportunities for learners to create presentations based upon their own interests. However, these interests should be relevant to their field of study. There is very little to be gained from students engaging in tasks that do not provide sufficient challenge for learning to occur, such as preparing slide presentations-based content that content that fails to go into any critical or technical depth. Providing the means to integrate academic content into presentations that students are interested in produces not only skills but also an academic identity in their classroom participation, though this identity may be somewhat fraught in its initial stages. As Wenger (1998) states "Granting... legitimacy is important because they are likely to come short of what the community regards as competent engagement. Only with enough legitimacy can all their inevitable stumblings and violations become opportunities for learning" (p. 101). In other words, students need to be given a chance to make attempts at authentic presentations, and a slide show commentary on facts without context or critique does not provide such affordances. If educators want to integrate students into their academic fields, students need to work on increasingly accurate presentations based on field-specific knowledge and its application. If this does not happen, students only practice speaking on a familiar topic, which is arguably less edifying than what could occur. As mentioned above, the materials for presentation teaching in higher education are either focused upon presentation as a vehicle for foreign language learning (e.g., Gershon, 2015), or else are aimed at presentation professionals and thus information is overly dense and selection of important details may be difficult for students (e.g., Duarte, 2008; Reynolds, 2012). The onus is therefore on teachers to make decisions about the content to be taught. One of the ways of considering this is through a needs analysis (Long, 2015), but rather than the target task being give a presentation", a more granular consideration of the types of information to be presented is required. Questions that need to be asked when creating a syllabus or even a sequence of lessons are: What kind of information will be presented, quantitative, qualitative, or a mix? What are the norms in the academic discipline? Perhaps even what do we mean by "academic", and how do we convey this to students? What can students realistically achieve in the time available? What preparation do students need to improve further beyond this course? How does this initiate students into the Community of Practice (Wenger, 1998) of their discipline? If these questions

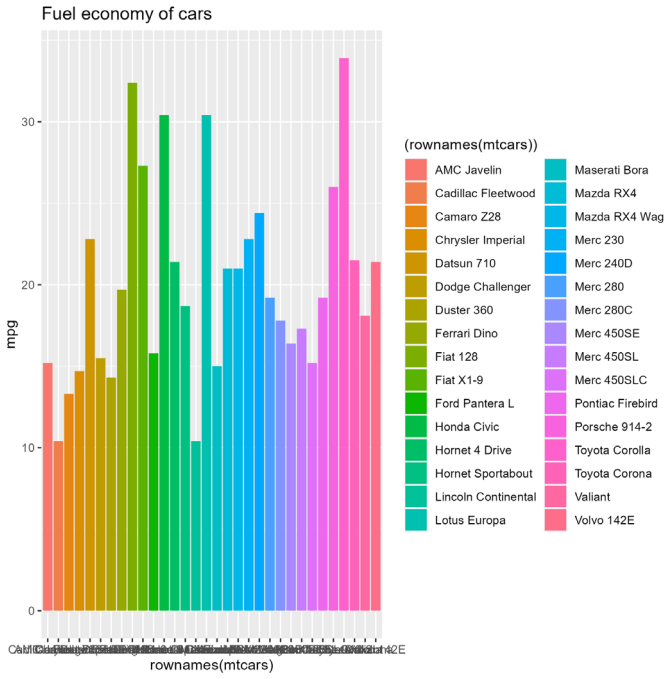
can be answered successfully, decisions regarding the types of tasks that students need to learn and perform should be easier to make.

When presenting quantitative information, what students often see in articles, chapters and textbooks and information found online is frequently what Tufte (2006) refers to as *chartjunk*: "garish colors, designer colors, corny clip-art, generic decoration, phony dimensionality" (p. 152) or else "the vast empty framing areas and the grid prisons that surround the unexplained and unreadable numbers" (p. 153).

In the following three examples, data regarding fuel economy of cars taken from the MTCARS dataset (R Core Team, 2022) is displayed. Figure 1 shows an overcrowded bar chart whose column labels cannot clearly be discerned, and which has a mislabelled horizontal axis.

Figure 1

Overcrowded Fuel Economy Data Bar Chart



While this data is crowded and cannot be easily understood, it is made considerably better in Figure 2, which limits the data to three relevant data points and has clear axes.

Figure 2

Gaudy yet Salient Fuel Economy Data Bar Chart

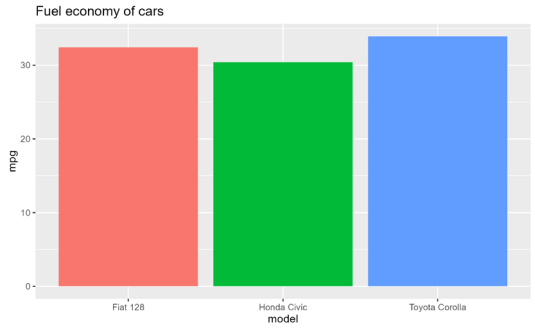
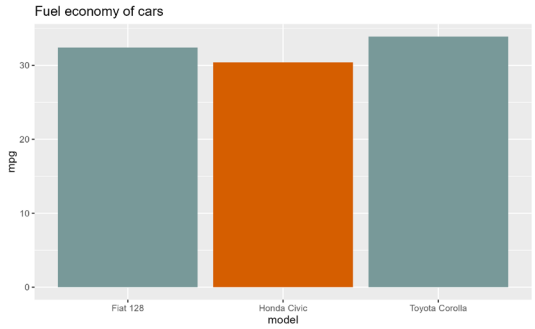


Figure 2 provides a salient example that when attempting to use data from large datasets, one ought to simplify according to what should be presented. However, Figure 3 takes the three data points from Figure 2 and reduces the colour palette from a set of gaudy primary colours, to more neutral colours, with the main salient data point given a standout colour.

Figure 3

Minimalist Fuel Economy Data Bar Chart



Limiting colour palettes, using bold and neutral colours for contrast as appropriate, and using only relevant data points are shown not only to be more aesthetically pleasing but more readable. Through exposure to chartjunk in presentations and asking students to remedy them, attention is drawn to the data without the need for laser pointer trickery or animations, and audiences can clearly see the information that is being referred to. Additionally, students can understand firsthand how selective use of data is actually essential to presenting data accurately to audiences. In doing so, they can also learn that selective use of data need not be a subjective, manipulative practice akin to so-called fake news, but is essential for effective communication.

Teaching Data Literacy: Methods and Examples

The approach to teaching data literacy for student presentations is based upon the work I have done in an elective course on presentation skills in an EMI department at a Japanese university, and compared between the Spring 2023 semester and preceding semesters from Spring 2021. The students in all of the classes have ranged from freshman to senior students, although the bulk of all of the classes have been freshman students, with a mix of domestic and international students. In addition, the department is multidisciplinary in focus, with students specializing in sociology of education, economics, entrepreneurship, journalism, international relations and interactions between them. Because many of these fields are data heavy, and with different data types, data that can be approached with different perspectives from the department's different disciplines were deemed most appropriate.

The course spanned one semester, and the lesson focuses are listed below:

Table 1

Lesson focus by week

1. Introduction to audiovisual communication - showing data and telling data
2. Planning - pencil and paper methods
3. Basic slide organisation and design 1 (Spatial organisation for information)
4. Basic slide organisation and design 2 (Typology and colour)
5. Assessed presentation 1: Explain a Global Innovation Problem
6. Explaining trends and processes
7. Choosing data visualisations - beyond bar graphs, line graphs and pie charts
8. Rhythm, intonation and dynamics
9. Knowing enough, stereotypes
10. Assessed presentation 2: Present data to encourage action
11. Narrative persuasion
12. Effective use of media
13. Audience involvement
14. Assessed presentation 3: Free topic
15. Reflection exercise

In my teaching of presentation skills, I have moved from teaching students to create slide presentations and hoping that information is conveyed effectively, toward activities where students look at datasets and graphs and actively discuss and decide what the most salient aspects are and design or redesign visualisations for these using pens and paper. Information has come from stock market data, and social science-related charts from the *Financial Times* (e.g., Campbell & Jack, 2022). After this type of activity, students then developed their assessed presentations, either individually or in groups. However, this article focuses only on the use of the data literacy work.

Groups of students were encouraged to isolate data that they thought were most useful from larger sets, and to present data in ways that were relatively straightforward to understand. They were also asked to consider the best way to show data, and create alternatives. Because students created these visualisations using pens and paper, there was no need to be able to code any kind of complex items, e.g., ranges over time series, or adding average points in representations of totals.

The next stage of the activity requires students to work together, still in their groups to create an explanation of their data visualisation and what the potential importance is of the data. If we consider the cars dataset above, the importance could be that of the three small cars selected, the Honda Civic has the lowest fuel economy and therefore should be avoided for local government use or carbon reduction measures. With datasets used in the classroom, students worked together well, finding logical explanations for different data and recommended educational interventions, considered differences between countries with high poverty, medium poverty and low poverty for aid and debt relief prioritisation.

Objectively, students showed a higher level of data literacy after lessons on making and explaining data visualisations, and used more appropriate graphical representations of data in their own presentations than previous cohorts in the course. The comparison is entirely subjective; however, teachers may consider using the approach to increase data literacy or improve the level of detail in student presentations. This rewards students with skills they may previously have considered difficult, and it rewards teachers with more compelling presentations to watch.

Conclusion

Multiliteracies and multimodality are crucial for understanding how presentations are constructed. Working with authentic data and selectively presenting it in order to engage with disciplinary norms are difficult skills to acquire. However, acquiring these skills is possible when students are taught through a pedagogy of multiliteracies, particularly information literacy, through academic content they select based upon their interests, which motivates them to create compelling multimodal presentations to enable peers to learn and share their interests. This, in turn, leads to better presentations, benefitting not only university students, but everyone. Limitations of the approach are that basic numeracy is assumed and that sufficient time is available to provide data literacy instruction. Furthermore, it is assumed that students have sufficient motivation to attempt work, bearing in mind that the approach detailed above was undertaken with an elective class. However, similar work in required classes may be equally rewarding if the information examined and presented is relevant and compelling.

Bio Data

Marc Jones is a lecturer in the Department of Global Innovation Studies at Toyo University, Japan and a PhD candidate at TU Dortmund, Germany. He has worked in many English Language Teaching contexts in Japan. His main research interests are listening and phonology, duoethnography, and ADHD in language teachers.

References

Aizawa, I., & Rose, H. (2020). High school to university transitional challenges in English medium instruction in Japan. *System, 95*, 102390. https://doi.org/10.1016/j.system.2020.102390

Buendgens-Kosten, J., Cornillie, F., & Sauro, S. (2023). Teaching (multi)literacies, supporting multilingual identities: Plurilingual writing in an interactive fiction project. *Fremdsprachen Lehren Und Lernen*, *52*(2), 72–89. https://doi.org/10.24053/FLuL-2023-00022

Campbell, C., & Jack, A. (2022, September 16). In charts: Education around the world. *Financial Times*. https://www.ft.com/content/0afa1e09-fee3-48e1-8d3e-618b3da83946

Clark, J. M., & Paivio, A. (1991). Dual Coding Theory and Education. *Educational Psychology Review*, *3*(3), 149–210. https://doi.org/10.1007/BF01320076

Cope, B., & Kalantzis, M. (2009). "Multiliteracies": New literacies, new learning. *Pedagogies: An International Journal*, *4*(3), 164–195. https://doi.org/10.1080/15544800903076044

Duarte, N. (2008). *Slide:ology: The art and science of creating great presentations* (1st ed). O'Reilly Media.

Duarte, N. (2010). *Resonate: Present visual stories that transform audiences*. Wiley.

Gershon, S. (2015). *Present yourself 2: Viewpoints*. Cambridge University Press.

O'Byrne, W. I., & Smith, S. A. (2015). Multicultural Education and Multiliteracies: Exploration and Exposure of Literacy Practices With Preservice Teachers. *Reading & Writing Quarterly*, *31*(2), 168–184. https://doi.org/10.1080/10573569.2014.968695

Pangrazio, L., & Selwyn, N. (2019). 'Personal data literacies': A critical literacies approach to enhancing understandings of personal digital data. *New Media & Society*, *21*(2), 419–437. https://doi.org/10.1177/1461444818799523

R Core Team. (2022). *R: A Language and Environment for Statistical Computing (4.2.2)* [Computer software]. R Foundation for Statistical Computing. https://www.R-project.org/

Ravelli, L. J., & van Leeuwen, T. (2018). Modality in the digital age. *Visual Communication*, *17*(3), 277–297. https://doi.org/170.11470/134570732517821786746443 6

Reynolds, G. (2012). *Presentation zen: Simple ideas on presentation design and delivery* (2nd ed., rev. updated). New Riders.

The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, *66*(1), 60–93. https://doi.org/10.17763/haer.66.1.17370n67v22j160u

Tufte, E. R. (2006). *Beautiful evidence*. Graphics Press.

Wenger, É. (1998). *Communities of practice: Learning, meaning, and identity* (18th printing). Cambridge University Press.