

Are Mini Whiteboards the Quickest Way to Improve Your Instruction?

Kevin JAMBOR

Abstract

This paper explores the impact of mini whiteboards (MWBs) on improving instruction, focusing on their application in English as a Foreign Language (EFL) and second language classrooms. The author posits that MWBs serve as a rapid and straightforward tool to enhance teaching effectiveness through increased student engagement and formative assessment. Drawing on established literature, the author advocates for strategic integration of MWBs into language classrooms to foster informed decision-making to enhance student learning outcomes. The paper outlines advantages and disadvantages of MWBs, emphasizing their role in facilitating quick formative assessment, monitoring student participation, and promoting active learning. The paper concludes with practical suggestions for implementing MWBs, including a variety of classroom activities and advice for effective utilization. The author's reflections on a semester of MWB use underscore the positive impact on student engagement and classroom management, positioning MWBs as a valuable tool for educators seeking quick improvements in their classroom management and instructional practices.

Key words: mini whiteboards, formative assessment, English as a foreign language, second language instruction, student response system

1. Introduction

The short answer to the title of this paper is: yes. If you would like to know why and how to use mini whiteboards (MWBs) in your classes, the rest of this paper answers those questions. I also offer some advice to program heads and teacher trainers for successfully implementing MWBs as a program-wide tool. Finally, I offer some reflections, having implemented MWBs heavily into my own lessons this past semester.

To be clear, mini whiteboards are not a one-stop solution. They are ultimately one type of student response card which increase the rate of active student participation, “a critical component of effective teaching...” but they are only “one part of the teaching-learning equation” (Heward, 1994, p. 313). They are not the cheapest. They are not as effective as a teacher-training program. However, I argue that the ease with which one can start using mini whiteboards without altering any other variables related to the lesson, class, course, or program means that they are the fastest and simplest way to improve a teacher's overall delivery of instruction.

2. Background

Curricular documents, ideally, guide decision making at the program, year or semester, and course level. If a program's curricular documents are better than ideal, they will guide instructor decision making at an even more granular level, down to perhaps units or even lessons. The

decisions which an instructor must make are in regards to how best to utilize the time and materials with any particular group of students in order to help those students achieve the goals of the lesson and unit, all the way up to the student-learning outcomes of the course or program. All teachers make these decisions purposefully or unawares each time they plan a course, a lesson, give feedback on student work, and in each of the numerous and spontaneous judgements they make in adjusting their plans during class time. Oftentimes a teacher's classroom and lesson-level decisions are made based on pressures to adhere to the plan, or what they might refer to as intuition, although this "intuition" is really a quick judgement based on a few salient pieces of information the teacher has become adept at quickly and nearly automatically observing about their students. Decision making, at all its levels, but most importantly for this paper, at the classroom or lesson level, is and will always be fundamentally better when the decisions being made are based on more data. A teacher may be quick to dismiss a general truism like this because of practical concerns: how will I possibly manage to find the time to collect more data, analyze it, and then make more informed, better decisions during my lessons? Here is where mini whiteboards come in. Randolph (2007) labels response cards, or mini whiteboards, as a type of low-tech student response system that allows for more responses at higher rates than hand raising or calling on individual students, which drastically increases opportunities for students to be actively engaged, for the teacher to gauge student learning, provide feedback, and assess the next step in the lesson (p. 113-114). Furthermore, regarding the use of mini whiteboards in the classroom, Gimbatas (2019) notes that "there is an overwhelming amount of evidence that supports positive associations on both student participation and academic performance" (p. 37).

Undergirding the argument that mini whiteboards will improve a teacher's decision making or instruction is the teacher understanding and strategically using formative assessment to make more informed decisions. Although the literature offers multiple definitions, in this paper I will use Black and Wiliam's (2009) definition:

Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted and used by teachers, learners, or their peers, to make decisions about next steps in instruction that are likely to be better, or be better founded, than the decisions they would have taken in the absence of the evidence that was elicited. (p. 7)

In his meta-analysis of response card research, Randolph (2007) determined that "response cards have large, statistically significant effect sizes for test achievement, quiz achievement, participation, and reduction in intervals of disruptive behavior" (p. 113). Marsh, Cumming, Randolph, and Michaels' (2021) updated meta-analysis "reaffirmed the efficacy of response cards to improve both academic and behavioral outcomes..." and the authors conclude that response cards "...although seemingly dated with the focus on embedding technology within the classroom, are a simple and cost-effective strategy that can address classroom issues including academic achievement, classroom participation, and off-task behavior..." (pp. 469-470).

3. Advantages of Mini Whiteboards

The advantages listed here subsume the benefits mentioned in the introduction and are more granularly focused on the advantages mini whiteboards provide to both teachers and students in managing and participating inside the classroom.

3.1 Temporary Format

Mini whiteboards are inherently temporary as a medium, like chalkboards. For practice, activities, and many in-class purposes, this type of medium is more suitable than writing on paper or in a textbook for actual practice. Students are more comfortable writing something quickly or taking risks with a response on mini whiteboards. The hesitation of having a messy book, or having to erase or cross out something on paper is eliminated.

3.2 Monitoring

Teachers can immediately and easily tell who is on task and who is not. Also, if more than two or three students do not have their markers or mini whiteboards in hand, the teacher has a clear and straightforward way of knowing it is time to stop the class and re-explain or re-teach.

3.3 Quick Formative Assessment

Compared to asking students to raise their hands if they understand or calling on one or two individuals to summarize or explain, mini whiteboards allow teachers to get quick formative feedback from essentially every student at every point in the lesson (Tips for Teachers, 2022). Furthermore, having every student thinking and producing something in response to a prompt allows the teacher to help the students consolidate knowledge or skills that have been introduced but not practiced or mastered.

Take the following hypothetical example for illustrative purposes. An English as a Foreign Language (EFL) instructor has just reviewed and given a few examples of grammatical structures and patterns used to express reason and cause-effect to their students who are going to write the first draft of their cause-effect paragraphs in class today. The teacher wants to check that everyone understood the explanation and is able to use the structures to express reason. Before starting the draft, the teacher hides the examples written on the board or asks students to close their textbooks and starts a new sentence on the main board for the whole class to see: 'Because we use fossil fuels as our main source of energy...' The teacher asks the students to finish the sentence on their mini whiteboards. At this point in the lesson, the teacher is expecting the students to be able to immediately begin writing the latter half of the sentence. After the allotted time or when markers stop, the teacher asks the back rows to show their answers, then, the middle and front rows. If there are one or two students with incomprehensible or seemingly erratic answers, the teacher can see that the vast majority of students are ready to start their drafts, move the lesson to that next step, and then assist the two students whose answers demonstrated they need more explanation. If, instead, a larger number of students have errors, produce a similar type of error, and/or are not able to finish within the allotted time, then the

teacher can safely assume that the initial explanation was inadequate or that more fundamental practice is required before drafts can be reasonably attempted. Instead of having the students start the drafts, the teacher will circle back to re-teach, explain in a different way, or scaffold with more structured prompts to build up to writing complex cause-effect sentences.

4. Disadvantages of Mini Whiteboards

The disadvantages in this section are often the first complaints or objections that teachers raise in opposition to implementing mini whiteboards into their classes. I present the disadvantages here for reference but consider them all easy to accommodate for or minimize. Furthermore, the importance of the advantages above far outweighs all of these potential negatives.

4.1 Distraction

Having the boards and markers on their desk can be a distraction for students who may use them for doodling, playing, etc. (Hasyn, 2023).

4.2 Easy to Copy

Students can often easily see what a neighbor is writing and copy onto their own board. This problem can be prevented if, when introducing mini whiteboards to the classroom, the instructor explains to the students the purpose of their use. Furthermore, a line of questioning to the students as to why it is “not good” to copy will help the students come to the logical conclusion that if student A copies student B, student A only succeeds in tricking the teacher that he or she understands when they really do not (Tips for Teachers, 2022). Then, student A does not get the teacher’s time or the extra help they need to work towards the lesson and course objectives. In the end, copying mini whiteboards only hurts the student who copies.

4.3 Logistics

Purchasing the mini whiteboards, markers, erasers, and storage bins requires a budget. Furthermore, transporting the MWBs to and from class or organizing their storage in the classroom along with training the students to distribute them are all real logistical concerns. However, none of these hurdles to implementation are insurmountable; they only require a small amount of planning. More importantly, the benefits that mini whiteboards provide far outweigh the inconvenience of dealing with the logistics.

5. Ways to Utilize Mini Whiteboards in the Classroom

The following list of suggestions or ways to use mini whiteboards in the classroom has been developed from a language-teaching perspective and assumes some familiarity with the types of lessons and activities that instructors commonly use in a communicative language classroom. The list is bulleted for the ease of scanning and to keep it brief.

- Quick “pop” quiz questions

- The teacher can use these for formative assessment or to bring the class together.
- Activity wrap-up
 - Students check their answers, write their score for the activity on the MWB, and show the teacher.
 - Students write a question they still have. Then, they ask neighbors. After a short discussion time, if their questions have not been answered, students ask the teacher.
 - Students demonstrate language skill by using the target vocabulary, grammar, etc. in a sentence.
 - Students demonstrate comprehension of a listening or reading text by identifying a key word or idea.
 - Students clear their desks besides the MWBs. The teacher asks a question directly from the drill, activity, etc. just seen and students must write an appropriate response.
- Exit tickets (Hasyn, 2023)
 - Exit tickets are questions or tasks directly connected to the lesson's objective. At the end of the lesson, the teacher asks the students to demonstrate that they have learned the skill or gained the knowledge that was at the center of the day's lesson.
- Hinge questions
 - Hinge questions refers to, similar to exit tickets, "whole class questions that can be used to check-in on pupils' understanding and help you to respond to their needs" (Hasyn, 2023). Strategically planning and placing these questions at the right times in lessons can ensure that the teacher is collecting evidence from every student to judge whether they are ready to move to the next step in the lesson.
- Whole-class quiz games
 - For quick recall at the beginning of a lesson, or as a review, teachers can see that every student is thinking about the material and producing something in order to participate.
- Whole-class brainstorming
 - Again, the teacher can easily monitor and ensure that all students are on task and generating ideas.
- Opening recall
 - The teacher starts the lesson with recycled questions, vocabulary, grammar, etc. to elicit language from the students covered in the previous lesson.
- Talk to your neighbor
 - Short partner conversations or sharing of answers becomes more focused and purposeful with MWBs. Quiet and shy students benefit from having something

written down which they can rely on to help communicate. Also, if the teacher plans to call on pairs as follow-up, the students have a chance to edit or revise their original answers on the MWBs.

- Student-generated quiz or gap activities
 - Students quickly create content modeled after textbook or teacher examples for their peers, for example quiz questions, conversation questions using target vocabulary, fill in the blank, etc.
 - Students copy a simple diagram and fill it in for a communicative activity. For example, students copy picture of a four-room house from the main board (Star Teacher Training, n.d.). They write target family vocabulary in the different rooms: “tall,” “dad,” “funny.” In pairs, students ask each other about their respective houses, e.g. “Is your mom in the living room?”
 - Students write four sentences about their weekend plans using future simple, two true, two false. Students stand up and read their sentences to a partner. If the partner repeats a false sentence correctly he or she gets one point towards winning the game.
- Dictations
 - Mini whiteboards as a medium are excellent for dictation activities.
- Reference language
 - Students copy the target language, key questions, etc. to be used in the next activity or task. E.g. students write down formulaic follow-up questions they need to ask in a conversation activity or word parts, vocabulary, or phrases they will scan for in a text.
- Peer teaching
 - After a teacher asks a formative assessment type question and observes that around one-third or more of the class has made mistakes, one option is to have students who answered correctly teach their peers. Students who answered correctly can give a thumbs up and those incorrectly thumbs down. Uppers teach the downers.
- Bingo activities
 - Students draw a simplified bingo sheet on their MWB and fill it with target vocabulary, phrases, etc. from the previous lesson or unit. The teacher reads a text aloud, or the students scan it. This text, which uses all target words, can be from a textbook, AI generated, etc. Students cross out a word when they hear or read it.
- Mingle activities
 - Whole-class mingle activities give students many opportunities to reuse set phrases or practice consolidating new skills or language. This type of activity can be scaffolded for lower skill levels with MWBs. Students can take notes ahead of time that they can refer to during the mingle task, which encourages

them to remain in the second language.

- Review Pictionary
 - Students have a list of review vocabulary, an action-filled narrative text, etc. that are a good match for visual depiction. In pairs or groups, students illustrate words or narrative elements to quiz each other or retell a story.

6. Advice for Implementing Mini Whiteboards into Your Class or Program

Taking mini whiteboards into the classroom and playing review games is not the “silver-bullet” I am advocating in this paper. Two of the main benefits of mini whiteboards, as mentioned above, are providing teachers with much more information about what their students understand and allowing students to begin consolidating knowledge and skills that they may understand but cannot apply in different contexts yet. With this in mind, I offer the following list of advice for ensuring that potential teachers or programs get the full benefits of mini whiteboards.

- Plan key questions at specific points in the lesson.
 - Write important formative, hinge questions, or exit ticket tasks ahead of time. For consolidating knowledge and skills, sequence item or question types scaffolding up for level of difficulty, i.e. start with recognition and move towards open-ended application: yes-no, true-false, correct-incorrect, multiple choice, fill-in-the-blank, jumbled sentence, complete the sentence, etc.
- Figure out the most efficient way to distribute and collect mini whiteboards for your classes and classrooms.
 - The solution will vary depending on the teaching context; however, you will want to minimize any possibility for misbehaving, especially with younger learners. For example, the teacher lays MWBs and markers on the desks before class, two students per row pass out and collect, or students pick up and return boards and markers as they enter and leave the room.
- Train students on how to use mini whiteboards and tell them why.
 - Set expectations and train behaviors at the start of the semester or year. Tell the students the MWBs are not a graded quiz or for participation points, they are for the teacher to ensure that all the students understand and can complete the day’s tasks.
 - Set rules for turning boards over when students finish answering and not erasing until the teacher indicates. For lower-level classes, teaching the functional classroom language related to the use of MWBs is beneficial.
 - “Turn your boards over.”
 - “Markers down. Boards down.”
 - “Ok, now each row is going to show me their boards on the count of three. Back row, one, two, three, boards up.”

7. Reflections on a Semester of Mini Whiteboard Use

The author of this paper is an English as a Foreign Language teacher and program director at a university in Japan. This past semester, fall 2023, with the generous help of department staff, I purchased 70 mini whiteboards for the program and led a pre-semester faculty-development session to train and encourage faculty to implement mini whiteboards into their language classrooms. This section offers some brief reflections from my own experience and observations.

At the faculty-development session, my fellow teachers and I generated a list of anticipated problems and then, potential solutions for the implementation of mini whiteboards into our classes. The majority of our perceived problems ended up not being major issues, i.e. overusing MWBs because of their novelty, doodling, markers being taken or running out of ink, students feeling inhibition from having to share or show answers. Although a student drawing sideburns on his face was not anticipated, it only occurred once and is not likely to be a major concern for most teaching contexts. The main problems that were and continue to be more troublesome are: modifying old lesson plans to utilize MWBs and being effective at maximizing the benefits of MWBs in the classroom for formative assessment.

Students responded positively to the use of mini whiteboards and, in my experience this semester, were quicker to write and produce in this format compared to paper or textbook. Mini whiteboards provided a writing utensil and surface, which eliminated time spent looking for or borrowing pencils, paper, and erasers. It is my impression that students were more willing to take risks in attempting answers or language structures in this format since they understood it was temporary practice. I noticed students would often be quick to write on the mini whiteboard and if they made a mistake, quickly erase and edit without hesitation. I find this to be helpful for my teaching context, where students often treat the act of responding to any teacher prompt, even in speech, as a right-or-wrong ultimatum. In terms of classroom management, mini whiteboards have proven useful in helping me monitor larger classes. It is immediately obvious if a student is on or off task. Also, when providing grammar or vocabulary feedback, I found students erasing and editing on the MWBs to be quicker and less of a hassle than paper and pencil, especially compared to working in a textbook.

8. Conclusion

This paper advocates for the adoption of mini whiteboards as a student response system in the language learning classroom. Evidence from the literature points to the effectiveness of mini whiteboards for improving behavior and student learning outcomes (Gimbatus, 2019, Marsh et al., 2021, Randolph, 2007). The advantages mini whiteboards offer far outweigh the few disadvantages, and the brief list of classroom applications provided above is merely a starting point for teachers and program directors considering using mini whiteboards to improve their delivery of instruction.

Notes

1. Teachers or program directors interested in using mini whiteboards are encouraged to contact the author (kevinjambor@isc.chubu.ac.jp or kjambor2017@gmail.com) for a copy of the faculty development workshop plan, which can be used as is or adapted to run a similar workshop for their own faculty. The workshop lesson plan is structured as a language classroom lesson plan so that teachers attending the workshop can learn the main concepts presented in this paper while seeing and experiencing several of the methods and activity types listed above.

References

- Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluations and Accountability (formerly: Journal of personnel evaluation in education)*, 21, 5-31.
- Gimbutas, E. C. (2019). *The effects of using mini whiteboards on the academic performance and engagement of students in a tenth grade resource English/Language Arts classroom* (Publication No. 2712) [Master's thesis, Rowan University]. Rowan Digital Works. <https://rdw.rowan.edu/etd/2712>
- Hasyn, R. (2023, December 11). *Mini whiteboards: 7 ways to use teachers' favourite classroom resource*. Third Space Learning. <https://thirdspacelearning.com/blog/mini-whiteboards/#:~:text=7%20ideas%20for%20mini%20whiteboards%20in%20the%20classroom,new%20concrete%20resources%20...%207%207.%20Exit%20tickets>
- Heward, W.L. (1994). Three “low tech” strategies for increasing the frequency of active student response during group instruction. In R. Gardner, III, D. M. Sainato, J. O. Cooper, & T. E. Heron, W. L. Heward, J. W. Eshleman, & T. A. Grossi (Eds.), *Behavior analysis in education: Focus on measurably superior instruction* (pp. 283-320). Thomson Brooks/Cole Publishing Co.
- Marsh, R. J., Cumming, T. M., Randolph, J. J., & Michaels, S. (2021). Updated meta-analysis of the research on response cards. *Journal of Behavioral Education*, 1-24.
- Randolph, J. J. (2007). Meta-analysis of the research on response cards: Effects on test achievement, quiz achievement, participation, and off-task behavior. *Journal of Positive Behavior Interventions*, 9(2), 113-128.
- Star Teacher Training. (n.d.) *Mini-whiteboards are an awesome teaching tool for EFL classes*. Star Teacher Training. <https://starteachertraining.com/efl-teaching-tool-mini-whiteboards/>
- Tips for Teachers. (2022, March 10). *To make sure your students are ready to practice, use mini-whiteboards – Tips For Teachers* [Video]. Youtube. https://youtu.be/9OxEZRQu3NI?si=gimnd_mi2JI8B15d