**Static investigation techniques can be very effective in achieving high-quality software. There are many forms of these techniques that include code reviews, inspection, informal review, etcetera. Discuss some of the benefits that can be achieved through these techniques. Which technique(s) do you believe can be the most effective and what can be the limitations for this approach? Understanding static techniques will be crucial as you will be discussing dynamic approaches in the coming week.**

Hello everyone.

First, my apologies for being late. This has been a rough week indeed because the truck I was moved into broke down almost immediately, causing me to have to move to another truck. In theory, I should not have any additional issues, as the new truck is a NEW truck (A 2022 International that only had 622 miles on it from being delivered).

Next, before I go into some of the other techniques, I believe the most effective to be code swaps (or buddy pairs). My reasoning for this choice is because one can get almost immediate feedback for your peer, it does not require scheduling in advance (in most cases), and it is likely that they are working on different parts of the same project and have an understanding already of what each other is working on. Some limitations that may occur include the lack of someone to moderate if having differences of opinions on how things should be done. Personality conflicts may arise if one is paired with someone they have never worked with as it can take time to work out the relationship dynamics between them. And, particularly in the case of less experienced developers, both may not be accustomed to the way the organization wants it done, thus both be wrong to some degree.

Now, before the benefits of other techniques, it is important to note, as stated by Spillner, Linz, and Schaefer, that there is no uniform terminology or standards with static analysis techniques, but only a loosely, general set of guidelines (Spillner, Linz, & Schaefer, 2014). The most significant benefit to the Walkthrough technique is that it familiarizes everyone with analysis object. It is often used as a precursor to one or more of the other techniques. Informal reviews are the most relaxed technique because they require the least amount of pre-preparation and can be organized quickly. Formal reviews (inspections) and Technical reviews, by far, are the most restrictive, requiring planning and a lot of preparation prior to scheduled meeting. The most significant benefit to these is having a moderator to keep things moving and on point with little deviation.

Regardless of which technique(s) are used, documenting everything that comes up is crucial, whether they be concerns or ideas of improving the development process.

**References**

Spillner, A., Linz, T., & Schaefer, H. (2014). *Software testing foundations: A study guide for the certified tester exam* (4th ed.). Rocky Nook.