“What is an effective class size for adult training?”

There is no simple answer to this question and we, at Friesen, Kaye and Associates, have not found a definitive source. However, we have identified some factors that we take into consideration when we set maximum class sizes for our programs. See below.

Instructional Design Fundamentals

Before we try to answer this question we need to look at some principles of effective instructional design, starting with the Systematic Learning Process, or PAF. We consider PAF so fundamental, that it is presented in all of our programs; but more importantly, all of our programs are designed to follow PAF. It is the model that ensures learners will achieve the specified objectives and transfer their new skill and knowledge back to their jobs.

For details about FKA’s Systematic Learning Process see the Appendix at the end.

A course is made up of a series of lessons and it is at the lesson level that we apply PAF. Each lesson will include at least one series of Presentation, Application and Feedback; many lessons cycle through two or more times. A course will repeat the cycle many times – this is the instructional process.

When allocating time for a program we recommend that, in total: 30-40% of class time is spent on Presentation, and 60-70% of time is spent on the combination of Application and Feedback. As you will see below, the more time spent on Application and Feedback the smaller the classes need to be if you have limited time.

Classroom Instruction

If adult learners are brought together with an instructor for training, we can assume that there is some benefit for them being together. Otherwise, there may be more efficient and cost-effective ways to ‘train’ them, for example, job aids or self-directed e-learning (aka “CBT”). Either you
Class Size

want to engage the learners actively during Presentation (building content, sharing ideas and experiences, collaborating) or an instructor needs to observe Application and give individual feedback.

Factors that Impact Class Size:

1. Total time allocated
2. The intent of the ‘training’
3. The level of mastery specified by the objectives
4. Ratio of Application & Feedback to Presentation
5. Health and safety issues
6. The type of classroom, i.e., physical or virtual

1. Total Time Allocated

Effective instructor-led training provides opportunities for everyone to share ideas and experiences during the Presentation portion. If it is important for learners to get individual feedback from the instructor during Application, and time is limited, you may have to reduce class size. The larger the class the longer Presentation, Application/Feedback will take.

2. Intent of ‘Training’

If the intent of the program is to actually change learner performance, adequate time must be given for them to practice applying their new skills and knowledge. See above. During some or all of the practice activities, individual instructor feedback is important to make sure everyone will be successful.

If the intent of the program is to simply raise awareness, for example, an introduction to new workplace health and safety legislation, the group size can be much larger. For our purposes, we do not consider this ‘training’.

3. Level of Mastery Specified by the Objectives

Benjamin Bloom’s Taxonomy of Cognitive Processing identifies six levels of mastery. Do learners only need to recognize the factors used to calculate a return on investment (ROI)? Or do they need to be able to calculate it for a specific project? Or do they need to develop a new formula that takes into consideration new trends, such as, social learning? The higher the level of mastery required the more time learners need to spend applying and practicing. As noted above you will either need to extend class time or reduce class size.

4. Ratio of Application & Feedback to Presentation

This has virtually the same impact as the factor immediately above. For programs where individual instructor feedback is important during Application, i.e., the more time spent one-on-one (rather than one-to-many during Presentation) the smaller the class size needs to be.
5. Health and Safety

If there are any health and safety issues with the training, classes need to be smaller to ensure the instructor can monitor everyone at all times.

6. Type of Classroom

Our experience has shown us that you need to make virtual class sizes a little smaller for the virtual classroom than in the physical classroom. Sharing ideas, working in small groups, asking and responding to questions all take a little longer in the virtual classroom. Also, the lack of visual cues / body language means that the instructor has to work a little harder making sure everyone is keeping up.

FKA Class Size Recommendations

- For in-person programs like Instructional Techniques or any programs where each learner will be given more than one opportunity to present practice lessons, facilitate a meeting or make presentations, the maximum is 10-12.
- For online programs like Instructional Techniques for the Virtual Classroom the maximum is 8.
- For in-person programs like Performance Consulting, or Managing the Learning Organization where most of the feedback can come from answer sheets or other learners, or feedback can be given to a group, the maximum is 16-20 (Please note that if learners will be giving feedback to each other you must allow time to prepare them for the task – exactly what to look for and how to give constructive feedback.)
- For online programs like Performance Consulting, or Managing the Learning Organization where some of the Applications can be done as individual assignments between sessions and sent in for written feedback, the maximum is 8-10

These maximums ensure that learners will get the individual instructor attention and feedback they need to be successful. We deliver highly interactive programs with learners frequently involved in individual and small group activities designed to consolidate learning and build confidence. During these activities it is critical for instructors to monitor everyone and provide feedback to make sure no one gets off track.

Of course we have given workshops and presentations at conferences with over 100 participants. In these situations we look at our objectives very carefully and reword them as necessary. For example, in a smaller workshop, learners may be able to create a training plan, but in a larger group they may only be able to identify the components of a training plan. The learners from the latter group will need more practice back on the job to achieve the level of mastery that can be achieved in a smaller group.
The Systematic Learning Process (SLP) is the essence of lesson design. Consistent use of this simple formula sets learners up for success by ensuring that they acquire the skill and knowledge that is being presented. Regardless of the presentation method and supporting media being used, effective instruction includes all the components shown in the diagram below.

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- Point out important strengths.
- Point out areas for improvement.
- Suggest ways to improve.

Presentation

Motivation
This is the first component of Presentation. Motivation has two stages:
1. Initial - The initial motivation hooks the learners by identifying the value and relevance of the training. It answers the learner question “What’s in it for me?” (WIIFM).
2. Ongoing – The motivation is maintained to keep the learners interested and actively participating throughout the training. It often builds on the initial WIIFM.

Information Transfer
This is the second component of Presentation. New facts, information, procedures, skills, etc. are introduced and explained to the learners. Presentation methods frequently used include: lecture, demonstration, discovery, discussion, field trip, group presentation, individual presentation, interview, reading, various forms of self instruction, tutorial.

Incorporating the VIVE formula ensures that you maximize learning:
- Variety
- Interaction
- Visuals
- Examples
Testing for Understanding (TFU)

This is the final component of Presentation. It is often integrated with the Information Transfer in order to keep learners actively participating and to ensure that they are ‘getting it.’ It is accomplished by asking questions related to the content just covered or through short activities.

Application

During Application the learner uses the content presented during Information Transfer. This component provides the opportunity to practice new things learned before the end of the training session. It may be repeated a number of times to assure mastery. Application methods frequently used include: case study, discovery, game, practical exercise, question and answer, questionnaire, role playing, simulation. This opportunity for practice during training builds the learners’ competence as well as confidence and enhances the likelihood that what was learned during training is used back on the job.

Feedback

The learner receives constructive support regarding the accuracy or adequacy of the responses made during Application. This support can come from the instructor, peers in the class or from the learners themselves.

Feedback must be:

- **Specific**
- **Immediate**
- **Constructive**
  - Point out important strengths.
  - Point out areas for improvement.
  - Suggest ways to improve.

Instructional Process

This P A F method may be used repeatedly, employing different presentation methods and media for each chunk of content. Several chunks of information may be presented before Application and Feedback.

The gold standard ratio for how much time to spend on Presentation, Application and Feedback is 30-40% for Presentation and 60-70% for Application/Feedback. Circumstances may dictate a 50%:50% ratio. Generally more than 50% Presentation moves away from training that supports performance improvement towards instructor focused provision of information. When this happens, learner participation, interaction and skill development are compromised.