

Short-Duration Mindfulness Training with Adult Learners

The adult learner is typically a motivated student who comes to class prepared to pay attention (Ross-Gordon, 2003). They also come with cognitive and emotional stimuli not related to the course's content, which can be distracting especially at the start of a class or following a break (James, 1892; McDermott, 1977).

Ways of dealing with the problem of start-of-class attention, and for that matter, attention during class, have been developed for K-12 education, including what might be called 'mindfulness' training for students (Benson, Wilcher, Greenberg, Huggins, Ennis, Zuttermeister, Myers, & Friedman, 2005; Carson, Shik, & Langer, 2001; Napoli, Krech, & Holley, 2005; Ritchhart & Perkins, 2000; Schoeberlein & Sheth, 2009).

The success of these techniques is based on sound scientific evidence on how mindfulness activities can and do influence attention (Jha, Krompinger, & Baime, 2007; Kaplan & Berman 2010; Lutz et al., 2009). William James (James, 1892; McDermott, 1977) differentiated between involuntary and voluntary attention. If changes in the environment are sufficiently novel, one may automatically pay attention (i.e., involuntarily), whereas for voluntary or directed attention, some effort is necessary to sustain attention and focus. In the classroom, it is almost entirely directed attention that must be gained if education is to be beneficial.

In K-12 education, there has been a general acceptance of mindfulness methods for dealing with directed attention. In the undergraduate area, there have been individual course efforts, including mindfulness as an integral part of the teacher's philosophy (Duerr & Zajonc, 2003) but to our knowledge, there are no general prescriptions for how to obtain attention in a class, especially at the beginning of a class session or following a break during the class. For adult learners, in particular, we found no references to the issue of attention, much less to specific techniques, such as mindfulness, as a way of coping with the problem.

Based upon the work of Arthur Zajonc (2009), as well as a presentation done by him at UC Davis Extension in 2009, the authors developed a very simple mindfulness technique to use with adult learners to gain and increase attention at the start of class and following breaks. While there are significant limits to what was accomplished in the study (e.g., only one instructor used the technique with a total of 145 individuals in six courses), the authors think the technique could, nonetheless, be generalized across many different course topics and instructors with similar results.

Method

Participants Selection

All of the 145 participants in the study were adult learners attending university-level leadership and communication courses. The participants were mid- and senior-level managers, divided approximately 60% male and



By Gene Crumley, Howard Schutz

*Gene Crumley is the department chair for Business & Leadership, in the Division of Continuing and Professional Education at the University of California, Davis. Prior to joining UC Davis Extension, Crumley was the associate director of development for Habitat for Humanity.
Email: gcrumley@ucde.ucdavis.edu*

*Howard Schutz is an emeritus professor in the food science and technology department at the University of California, Davis. His research focused on consumer psychology in the areas of consumer behavior, food product development, and consumer research methods. His Ph.D. is from the Illinois Institute of Technology.
(Email: hschutz@ucde.ucdavis.edu)*

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40% female; ranging in age from 25-65 years; and, with some racial and ethnic diversity in each of the six courses involved in the study. The participants were drawn from six courses taught between December 2009 and February 2010. Participants acted voluntarily and were not paid.

Data Collection

As indicated above, the genesis of the research design was based upon an exercise that Dr. Arthur Zajonc used in the fall of 2009 while teaching a session on mindful attention for university-level instructors. In brief, the authors took the 10-15 minute version of Zajonc's exercise and truncated it to 60-90 seconds. No elements or steps were eliminated, but each was significantly reduced in amount of time dedicated. For example, in the original Zajonc exercise approximately 3-4 minutes were dedicated to having the participants observe their breathing. In the study, the 3-4 minutes were reduced to 15-45 seconds. The exercise is detailed below (Instructions to participants). A questionnaire was used to collect data for the study and is found in Appendix A.

Instructions to Participants

Each course received the following background information by the instructor:

- Research done in many settings, including medical settings, "seems to suggest a strong correlation between meditation and physiological and psychological benefits, such as lowered blood pressure and better thinking (both speed and quality)."
- This research, however, has only been done with people who make "a significant investment of time and effort in the meditation practices," and the researchers, "want to see if a much smaller investment of time might or might not also yield a meaningful benefit."

Once the background information was presented, the instructor gave these instructions to the participants/students in all six courses:

- "Sit up straight in your chair, with your feet flat on the floor."
- "Empty your hands and then place them anywhere that is comfortable."
- "Now, close your eyes and listen for my instructions."
- "With your eyes still closed, I want you to begin by simply observing your thoughts right now, wherever they are taking you ... but I don't want you to make any judgments about those thoughts ... I simply want you to take notice of them." [The amount of time dedicated to this first task was typically 15-45 seconds in duration.]
- "Now I want you to gently move your thinking and become aware of your breathing, and I want you to consciously regularize your breathing so that it is nice and smooth." [The second task averaged 15-30 seconds in duration.]
- "Now I want you to consciously move your thinking one more time, this time bringing it back to this classroom. I'm going to count backwards from five, and when I get to one, I want you to open your eyes and be fully present in the classroom, right here and right now. Five ... four ... three ... two ... one. Open your eyes." [The third task took 30-45 seconds to complete.]

Results

As indicated in Table 1, the majority of participants in the study (65%) did not have prior exposure to the ideas, concepts or techniques of mindful attention, and those who did were exposed in a variety of ways, including many who were self-taught.

Table 2 indicates that the vast majority of participants (77%) thought that they would likely or very likely continue the practice once the class ended.

The high response rate to continuing the mindful attention practice could be explained by perceived benefits outside the classroom, e.g., in a workplace setting

Table 2: Likelihood of continuing mindful attention practice beyond end of course

	Not likely	Somewhat likely	Likely	Very likely	Unsure
Number of responses	4	26	40	69	1
Percent of total responses	3%	18%	28%	49%	2%

Table 1: Prior and specific type of exposure to mindful attention

	Number of times cited*	% of total responses**
College/university course	14	10%
Self-taught	12	8%
Meditation	10	7%
Buddhism (Zen)	08	6%
Spiritual Growth (church, Sunday School)	07	5%
Yoga	05	3%
Counseling	02	1%
Misc. for example: relaxation technique; Peace Officer training; visualization; etc.	10	7%
No prior exposure	94	65%

Notes:
 * some participants had multiple and various types of prior exposure, which explains why the total responses equals 162
 **these percentages are based on the number of participants in the study, i.e., n = 145

(Church, 1997; Sosik & Megerian, 1999; Veiso et al., 2006).

Table 3 presents results from the first open-ended question on the questionnaire, which explains why there were 156 answers, even though only 138 individuals responded to question #3 ("As best you can remember, what were your first thoughts/impressions when the instructor introduced the concept of mindful attention?").

Perhaps not surprisingly, an open-ended question created opportunities for multiple-categorized answers, such as, "not sure where [the instructor] is going with this, but interested to find out," which was categorized as both *Skeptical/negative* and *Positive*. Or, "my first thought was that it was silly. However that quickly changed," which was categorized as both *Skeptical/negative* and *Unfamiliar*. And, finally, "seemed a little

weird, however the short-silent sessions are very effective for focusing," which was categorized as both *Skeptical/negative* and *Positive*.

To be categorized as *Positive*, a response needed to indicate clearly that the individual either enjoyed the experience (e.g., "totally cool!"), or found it beneficial (e.g., "calm and relaxed, feeling of security"). *Skeptical/negative* responses, beyond those noted above, included ones like, "anxiety and concern about its validity," and, "was unsure how it would relate [to the course]."

Responses that were categorized as *Unfamiliar* included ones like, "sounded something like meditation," and, "made me more curious/interested." And for a response to be categorized as *Familiar* there needed to be a specific reference to an earlier practice or experience, such as, "I actually used to meditate. Thought/wondered actually if shorter time period could work," and, "I recognized it immediately as a type of meditation I did in my late teens." Any response that did not clearly fit into one of the four other categories was classified as *Miscellaneous*.

As Table 3 indicates, nearly one-in-five participants/students began the day with a negative or skeptical view of the mindful attention exercise. And when that group is combined with those who began the day being unfamiliar with the exercise (14%), then almost one-third of

the participants (31%) were either negatively-biased or neutral toward the practice. Table 4 suggests that more than a third (39%) of the participants changed their initial impression of the mindful attention exercise, from negative/skeptical/neutral to positive by the end of the class session, based upon their perceptions of benefits gained, including increased focus and better understanding of the

External and internal distractions in the classroom will likely always be a problem, even when the students are highly-motivated adult learners and the teachers are highly-skilled instructors and faculty.

Table 3: Initial thoughts/impressions of the mindful attention exercise

	Number of times indicated	% of total responses**
Positive	48	30%
Skeptical/negative	27	17%
Unfamiliar	21	14%
Familiar	17	11%
Misc.	43	28%

course materials.

To be categorized as Increased focus/attention, a response needed to include either the word 'focus' or 'attention' and some modifying word or phrase that indicated an increase, such as 'improved' or 'more' or "better," etc.

Responses that were categorized as better understanding of technique and more receptive to its value included any that used the phrases, "better understanding" or "more receptive," or indicated similar appreciation for the technique's mechanics and value. Any response that did not clearly fit into one of the three other categories was classified as Miscellaneous.

Discussion

Despite its enormous complexity and multi-processing capability, the human brain is nonetheless limited when it comes to focused and sustained attention (Foerde, Knowlton, & Poldrack, 2006; Marois & Ivanoff, 2005). Researchers have demonstrated that, "the ability to focus one's attention while resisting distraction is critical for adaptive, goal-directed behavior" (Ressler, 2003), a critical component of education. The propensity for distraction is likely due to evolutionary pressures that resulted in what William James referred to as, "a wandering attention". In other words, a wandering attention for early *homo sapiens* was a very successful evolutionary strategy.

By 1890 James had recognized the modern dilemma of teaching in the 21st

century. I.e., even when the learners are highly motivated adults, it is challenging to compete for attention in the classroom with the distractions of work and home life, which every adult learner brings to the start of class, to say nothing of iPhones, Blackberries, Facebook and Twitter (Ophir, Nass, & Wagner, 2009). Moreover, electronic distractions appear to be increasing at a pace that will continue to make focused attention in the classroom all the more challenging for the teacher/instructor, as well as the student/adult learner (Young, 2006).

Previous research suggests that meditation enhances attentional capacity in adults (Jha et al., 2007), but the invest-

ment of time in learning these practices is considerable (Ressler, 2003). In the context of continuing and professional education, where students typically take one course at a time in a specific field or discipline, there is very low likelihood that a major investment of time in learning a meditation technique would be practical. After all, even if beneficial, a significant investment of time in learning a meditation technique would directly compete with the course's stated content, e.g., project management or landscape design, and would be difficult for the instructor to justify.

We began our exploratory study with a simple question. "Could a brief exercise in mindful attention create benefit for participants in a professional education

Table 4: Perceived benefit of mindfulness exercise

	Number of times cited	% of total responses**
Increased ability to stay focused/attentive	44	33%
Reinforced course materials	28	22%
Increased self-awareness (e.g., of current mood)	23	18%
Brought class/participants to order quickly	06	5%
No benefit	05	4%
Misc. for example: assist with problem solving, clarity; brought me to the present; etc.	23	18%

classroom?" The authors recognized that even their modest study would have many challenges, not least being the impossibility of introducing a simple mindfulness exercise into the classroom without also introducing a demand characteristic. The variability of the results, however, would seem to suggest that the demand characteristic did not overwhelm the study.

The authors also recognized the limitations and constraints of having only one instructor teach the exercise, in a limited number of course topics, within only one academic department at one public university's division of continuing education. Thus the study is exploratory.

These caveats notwithstanding, the question still remains valid, "Could a brief exercise in mindful attention benefit?" The data we collected would seem to suggest an affirmative answer. Moreover, the authors think the results might be generalized to other programs in continuing and professional education, and to other instructors.

Research on the benefits of meditation or mindful attention has been done on elementary through college/university students (Benson et al., 2005; Napoli et al., 2005; Ritchart & Perkins, 2000). The authors, as referenced earlier, found no similar studies conducted with adult continuing and professional education students. One reason for this lack of research could be the incompatibility, as noted above, of a major time commitment (to learn the meditation techniques used in many experiments) and the time constraints of professional and continuing education. The brief mindful attention exercise used in this study might provide a methodological bridge to increased research done with adult learners and meditation/mindfulness.

We think the study suggests that instructors/faculty who teach adult learners would create real benefit for their students/adult learners and themselves if they introduced this simple practice into their teaching.

Conclusion

External and internal distractions in the classroom will likely always be a problem, even when the students are highly-motivated adult learners and the teachers are highly-skilled instructors and faculty. A simple and brief exercise that focuses the attention of both students and teachers might be one way of reducing the distractions in the classroom, including the professional and continuing education classroom. In this brief exploratory study, the authors used a simple mindfulness exercise that increased the participants' perceptions of their ability to focus and attend to the course materials. The study would also seem to suggest that instructors using the technique would

benefit from increased focus as well.

Further studies designed to establish a causal link between mindful attention exercises and increased academic performance would seem to be warranted based upon the results of this study. One follow-up study seems particularly apt, and would lead to additional quantitative data to support the premise of this paper. The experiment would measure how many on-topic questions students ask, following a break, under two conditions: with and without the short-duration mindfulness technique used in this study. The authors hypothesize, based upon their experience in this study, that more questions would be asked following the use of the technique; and, additionally, we think the quality of the questions would also be increased.

Appendix A

Mindful Attention

[Course title and participants' organization name]

[Course date]

1. Was the introduction to *mindful attention*, as part of today's course, your first exposure to the idea, concepts or techniques of *mindfulness*?

Yes (please go to question #3)

No (please go to question #2)

2. Please briefly indicate your exposure to *mindfulness* before the [Course date] course:
3. As best you can remember, what were your first thoughts/impressions when the instructor introduced the concept of *mindful attention* this morning?

4. As best you can remember, how many *mindful attention* exercises happened today?

5. Compared to your thoughts/impressions about the first *mindfulness* exercise this morning, did your thinking or impressions change by the end of the last *mindfulness* exercise this afternoon? If your answer is 'yes', how did your thinking or impressions change?

6. What benefit(s) do you think the technique of *mindful attention* brought to you during today's class?

7. During the class today you were encouraged to continue practicing the simple *mindful attention* exercise. How likely do you think you will continue the practice? [Please circle your answer.]

Not likely at all

Somewhat likely

Likely

Very likely

Unsure

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