Abstract
Management educators have studied how climate affects productivity in the workplace. The literature on classroom climate indicates effective learning requires instructors in classrooms of all types attend to students’ needs in the environment in which they are situated. Meanwhile, the field of adult learning informs us adults learn in different ways than do children. Little is known how management students experience classroom climate, or how their experience or expectations of classroom climate shift from lower to upper division. This study discusses results of data collected using the Adult Classroom Climate Scale (ACES) in two sequential management classes.

Learner-Centered Teaching
Learner-centered teaching (LCT) is philosophically related to participatory management practices. A learner-centered environment is designed to encourage students’ interaction with content, with one another, and with the teacher with the aim to improve the learning process. Studies show student engagement, learning, and satisfaction increase in environments in which they have choice (Weimer, 2002, 2013). Management educators play a critical role in teaching content, but may also play an important role in modeling ways for students’ to experience ways in which positive relations, trust, and shared control often lead to improved performance outcomes. Thus, learner-centered teaching offers an opportunity to foster important “relationships between academic learning and learning in the larger world” (Ross-Gordon, 2003, p. 49).

To provide students with choice in their coursework, both authors designed or incorporated numerous types of assignments, titled Choice Learning Points. The objective was to allow students some choice in determining the type and number of assignments they were willing to complete in order to achieve the grade desired at the end of the course. This allowed flexibility in his or her learning, required they manage their time, and produce work the professors valued on a continuous basis. Assignments that did not meet the stated criteria were returned for revision. Students also took a traditional midterm and final. The Choice Learning Point options ranged from answering questions at the back of the text chapter, to creating PowerPoint slides, to case studies, to assessments and reflective papers, to group papers, and on to reflective papers in which the student learned and applied models or concepts from their experience as they drew lessons learned. Students could also design Mind-Maps, discuss current events, or use their creative abilities to produce skits, record a video, or write short-stories encompassing theories and concepts. Obviously, the amount of grading the professors completed was enormous. Due to the design, students expressed they were less stressed than typical courses consisting of two or three high-stakes assignments. They felt they were more in control of their destiny.
Adult Classroom Environment

Classroom climate is determined by a constellation of factors that interact in various ways. Perceived environment plays a major role in whether or if students (or employees) learn or perform. Educators—as the leaders/managers of their class—are the primary caretakers of climate even though this is in reality a shared responsibility embedded in student-instructor interactions. Student views of classroom climate are not characteristically measured at the level of the classroom, yet each educator may feel the effects in levels of engagement, energy and flow.

Providing students with some choice in the types and number of assignments undertaken for credit is a first step in developing a sense of (student) control. Control eventually leads to a climate of trust, autonomy, and interest in increased learning and improving performance. Choice assignments may also lead to feelings of frustration, anger, and resentment among those not ready or willing to accept responsibility for their learning.

Some students may not be developmentally ready for undertaking the responsibility to learn. Others are more than ready and quickly take on these tasks when given the opportunity to do so. Principles of adult learning suggest students want more control and to be embedded in environments that respect them for what they bring to class. Learner-centered teaching practices align with adult learning principles in important ways. However, years of student-centered teaching leave some unable, unwilling, or ill prepared to take on responsibility for learning, skills viewed as essential among employers.

Adult Classroom Environment Scale (ACES)
In 1980, Malcolm Knowles introduced two new concepts to the field of education, “climate” and “andragogy.” As such, in terms of the first concept—climate—the field of education began to think about the environment in the classroom and how it affects learning. Knowles also introduced the concept of andragogy, or that adults learn differently than do children and adolescents. Thus, Knowles proposed a teacher’s actions and interaction with the adult student was a critical element for learning to occur. Thus, Knowles viewed the role of the instructor as paramount.

Darkenwald envisioned the learning environment as an active system of exchange between student and teacher. Darkenwald (1987, 1989) then created an instrument, the Adult Classroom Environment Scale (ACES), to assess classroom climate. The instrument uses a 4-point Likert-scale with which to measure seven empirically based dimensions (Darkenwald, 1989, p. 72). Thus, the educator would know where to focus his or her efforts to improve the climate.

The ACES scale consists of three dimensions and seven categories (Imel, 1991):

Relationships

*Involvement.* Extent to which students are satisfied with class and participate actively and attentively in activities

*Affiliation.* Extent to which students like and interact positively with each other
Teacher Support. Extent of help, encouragement, concern, and friendship that directs toward students

Personal Development
- Task Orientation. Extent to which students and teacher maintain focus on tasks and value achievement
- Personal Goal Attainment. Extent to which teacher is flexible, providing opportunities for students to pursue their individual interests

System Maintenance and Change
- Organization and Clarity. Extent to which class activities are clear and well organized
- Student Influence. Extent to which teacher is learner-centered and allows students to participate in course planning decisions

Methodology
Pre-and Post Measures taken in two different, consecutive management courses at Central Connecticut State University in fall 2012. Participants were surveyed using the ACES at two times: T1 during first week of semester; and T2 end of semester. A Likert-scale 1-4, with 1 indicating “strongly disagree” and 4 indicating “strongly agree.” Individual scores were matched.

We reached a participation rate 60% in MGT 295, and 52% in MGT 326. Instructors used a learner-centered teaching approach (Weimer, 2002, 2013) in which a key feature of the course design allowed for great flexibility (Choice) and student responsibility for determining the number and types of assignments turned in for credit. One limitation of the study was not making clear on the assessment the participants were to evaluate the current course rather than all courses in which he or she was registered.

- MGT 295 (Fundamental of Management and Organizational Behavior), comprised mainly sophomores, the average age of which was 19.62 years. Students in MGT 326 (Business Organizational Behavior), were mainly seniors with an average age of 21.80 years.
- Overall: there were changes in both courses in terms of how participants perceived classroom climate.

Findings
For each course, the differences in the means for T1 and T2 were inputted into a t-test for matched samples. This allowed us to test the null hypothesis of no significant differences in learner-centered teaching and the utilization of Choice Learning Points in the study participants.

For each category, the following table indicates whether a significant difference, at the .05 level, was achieved from a pre to post administration of the ACES scale for each course:
Table 1: Significance of the Scale Categories

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Category</th>
<th>MGT 295</th>
<th>MGT 326</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship</td>
<td>Involvement</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Affiliation</td>
<td>Yes*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Teacher Support</td>
<td>Yes*</td>
<td>Yes</td>
</tr>
<tr>
<td>Personal Development</td>
<td>Task Orientation</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Personal Goal Attainment</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>System Maintenance and Change</td>
<td>Organization and Clarity</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Student Influence</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

The * indicates that the direction of the difference between the courses was opposite.

**Interpretation**

All analyses were performed as two-tailed test of the hypothesis of no difference, at the .05 level of significance.

**Overall Total Score**

For MGT 295 course there was not a significant change in mean scores between T1 and T2. However, for MGT. 326 there was a significant change, an increase between T1 and T2. This would indicate an overall more positive level of satisfaction of the classroom environment for MGT 326. In each course students experienced a learner-centered classroom environment in which Choice Point assignments were offered.

While it is important to learn of the change in total satisfaction, it is as critical to look at each of the ACES’ categories to learn more specifics of the impact of the teaching method and the impact on students’ perception and satisfaction. Within each course only data from students who completed both administrations were analyzed. The results are provided below:

**Relationships Dimension**

*Involvement.* While there was no significant difference in the MGT 295 course, while there was in the more advanced MGT 326. That is, students in the MGT 326 course were more satisfied with the class and participation in activities. This may be due to their having more courses and classroom experience.

*Affiliation.* There was a significant difference in scores between T1 and T2 for both courses. However, it is interesting to note that the change was in the negative direction for MGT 295 while it was a positive change for MGT 326. Thus, it seems that students in MGT 295 were less satisfied with interacting with each other as the course progressed, while those in MGT 326 were more satisfied with their interactions.
**Teacher Support.** Again, there was a significant difference in scores between T1 and T2 for both courses. Again it is interesting to note that the change was in the negative direction for MGT 295 while it was a positive change for MGT 326. It seems that students in MGT 295 were less satisfied with faculty help, while those in MGT 326 were more satisfied with the faculty directed support.

**Personal Development**

*Task Orientation.* There was no significant difference in scores observed between T1 and T2 for either course. That is, there was no change in the extent of student satisfaction with the task focus and value of achievement maintained.

*Personal Goal Attainment.* There was a significant difference between T1 and T2 for MGT 326 students but not in MGT 295. Thus, the students in MGT 326 were more satisfied as the course progressed with the flexibility of the teacher providing opportunities for students to pursue their individual interests. Recall that in each course students experienced a learner-centered classroom environment in which Choice Point assignments were offered.

**System Maintenance and Change**

*Organization and Clarity.* There was a significant difference between T1 and T2 for MGT 295 students but not in MGT 326. Participants in MGT 295 were more positive about the organization and clarity as a result of experience in a learner-centered classroom in which Choice Point assignments were offered.

*Student Influence.* There was a significant difference between T1 and T2 for MGT 295 students but not in MGT 326, indicating that there was a significant increase in the level of satisfaction of the MGT 295 students with the extent to which teacher is learner-centered and allows students to participate in course planning decisions.

**Discussion**

Much of the literature indicates students want choices and flexibility in the classroom. They do not want a “sage on the stage.” Rather they want to be involved in an environment that allows them to explore with one another the subject matter, and have the opportunity to pursue their own interests where possible. In designing this study, the authors also wanted to explore the differences in readiness, willingness, and ability to take on responsibility for learning among essentially, college sophomores and seniors studying business management.

Students initially resisted the format of the course, or were totally confused by its flexibility and their responsibility to create a series of assignments leading to a grade they desired, on their own. We know they were time-starved given demographic information collected at the beginning of the study. Most all of the students were taking five or six 3-credit courses, and worked at least 25 hours per week. Still, every one of them entered the courses with the expectation they would earn a “A”. What’s more, we believe most of the students entered the courses expecting a traditional lecture-based course, consisting of multiple-choice exams. Clearly, this did not occur.

Overall, increases in scores among students in both courses indicating an increase in the level of satisfaction in the (learner-centered) classroom environment. While the MGT 295 course did not reach a significant change, the sample size was extremely small (n=14).
Results for students in MGT 326 indicate a significant, positive increase in satisfaction of the learner-centered classroom environment.

References


