Diversity, Inclusion and the ExCEEd Teaching Workshop

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Abstract

The American Society of Civil Engineers (ASCE) Excellence in Civil Engineering Education (ExCEEd) Teaching Workshops are currently in their 20th year of existence and have been highly successful. There is a growing body of literature on creating a multi-cultural classroom that celebrates diversity, accounts for the global differences and experiences of students, and deliberately fosters inclusivity. This paper examines the content of the existing culturally inclusive literature and quantifies how much is already present in the current ETW curriculum. It then suggests how much more could be included if a deliberate effort is made to include diversity and inclusivity into the workshop content. It suggests what elements in the culturally inclusive literature are not feasible to include in a one-week workshop. Finally, it makes recommendations on how to best revise the current ETW to include and incorporate this content without lengthening the time of the workshop.

Introduction

There is a growing body of literature on creating a multi-cultural classroom that celebrates diversity, deliberately fosters inclusivity, and accounts for the global differences and experiences of students. A few sample topics include transformative strategies for building culturally inclusive classrooms, recognizing our biases and behaviors, using a variety of teaching strategies to accommodate diverse learning styles, and including text/reading materials from diverse authors from different races, sexual orientations, genders and abilities.

The American Society of Civil Engineers (ASCE) Excellence in Civil Engineering Education (ExCEEd) Teaching Workshops are currently in their 20th year of existence. This landmark project has over 980 graduates from 256 universities around the world. The week-long teacher training workshop has been successful by all measures and has made a substantial difference in civil engineering education in the United States.[1] It continues to grow and is widely supported by university deans, department heads and faculty.

The ExCEEd Teaching Workshop (ETW) was developed using existing literature in engineering education. There was no deliberate effort to incorporate diversity, inclusion and multi-culturalism into the development of the seminars and content of the ETW. Despite that lack of direct focus, much of the content, methodology, and emphasis suggested by the culturally inclusive literature is included in the ETW simply because the practices are universal and follow the precepts cited in the engineering educational literature. There has been a conscious effort to include diversity in the selection of the ETW participants and faculty and in the formation of ETW teams.

This paper examines the content of the existing culturally inclusive literature and quantifies how much is already present in the current ETW curriculum. It then suggests how much more could be included if a deliberate effort is made to include diversity and inclusivity into the workshop content. It assesses what elements in the culturally inclusive literature are not feasible to include in a one-week workshop. Finally, it makes recommendations on how to best revise the current ETW to include and incorporate this content without lengthening the time of the workshop.

ExCEED Workshop Content

The schedule for a typical five-day ExCEEd workshop is shown in Figure 1. The workshop activities can be sub-classified into seminars, demonstration classes, laboratory exercises, and social events.

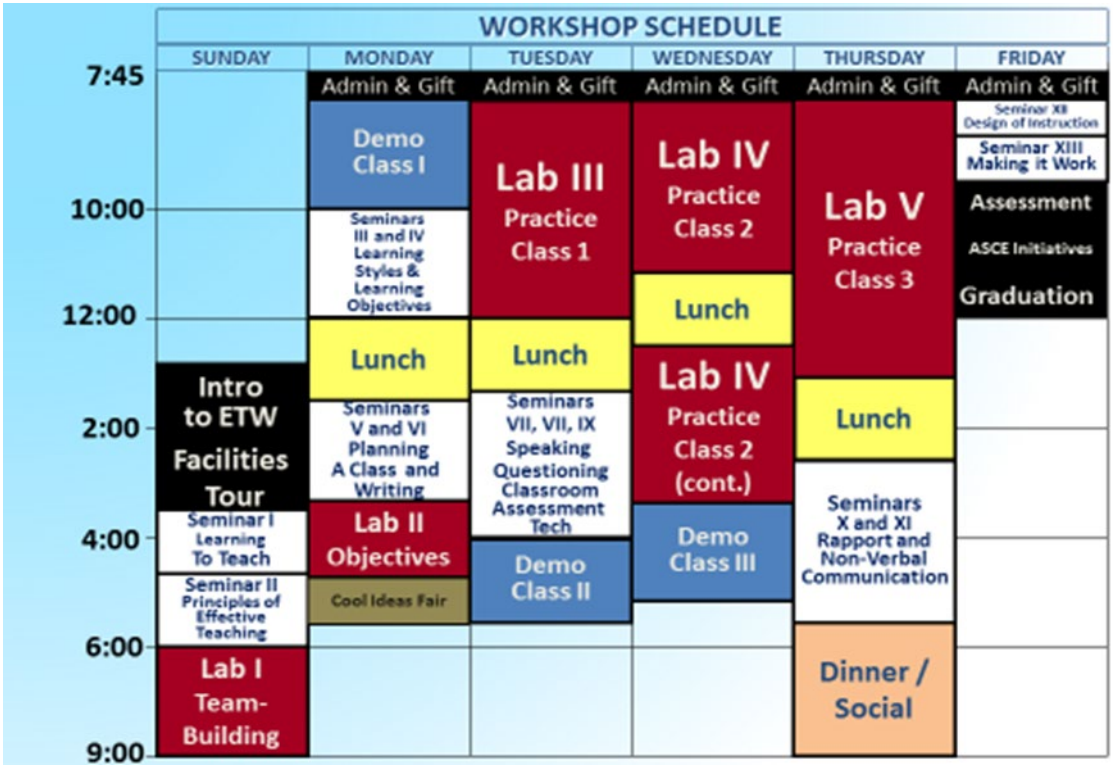

Figure 1: A Typical Schedule for the one-week ExCEEd Teaching Workshop

Seminars: The course schedule for the 2018 ETW contained 13 Seminars which varied in content and were designed to provide theoretical background, teaching hints, organizational structure, and communication techniques. A brief description of each seminar is offered in Table 1. There was previously an additional seminar that covered classroom assessment techniques such as muddiest point paper, preconception check, minute paper, and approximate analogy as potential means of assessing student comprehension[2]. Currently those techniques are instead integrated and illustrated in the other seminars. The seminars are presentations given by senior ETW faculty and include

small group activities and facilitated collaborative discussions. All 24 participants (6 teams) are together but sit with their team members.

Demonstration Classes: ExCEEd faculty members teach example engineering classes where the workshop participants are role-playing as students. These demonstration classes are intended to role model exemplary teaching, to illustrate active engagement with students, and to reinforce the methods of teaching covered in the seminars in a realistic classroom environment. The demonstration classes are deliberately spaced at intervals throughout the workshops so that participants can better observe and appreciate different aspects of teaching as the workshop progresses. Afterward, the participants formally assess the class strengths and areas for improvement.

ExCEEd Teaching Workshop Seminars	
I	**Learning to Teach:** Justifies importance of formally learning to teach and introduces a model instructional strategy that will be a road map for the ETW.
II	**Principles of Effective Teaching and Learning:** Introduces Lowman's[3] two-dimensional model of teaching and provides a compendium of learning principles.
III	**Introduction to Learning Styles:** Examines Felder's Learning Style Dimensions[4] and discusses how to accommodate all styles of learners.
IV	**Learning Objectives:** Introduces Bloom's taxonomy[5] of educational objectives and shows how to write appropriate and useful learning objectives.
V	**Planning a Class:** Offers a structured methodology for organizing a class with emphasis on constructing an outline, board notes, and out-of-class activities.[6,7] (See Fig. 2)
VI	**Writing:** Covers fundamentals of making written presentations using the chalk board, vu-graphs, and Powerpoint slides.[8]
VII	**Speaking:** Illustrates effective use of the voice and demonstrates how to stimulate positive emotion using drama, music, humor, and spontaneity in the classroom.[9]
VIII	**Questioning:** Illustrates different student questioning techniques and discusses effective strategies for their use.[10]
IX	**Teaching Assessment:** Covers student, peer and self-assessments and separates myth from fact regarding their usefulness. Introduces Teaching Assessment Worksheet.[11]
X	**Developing Interpersonal Rapport:** Offers useful techniques for building an effective rapport with students; discusses student personality types and offers hints to avoid chill in the classroom.[3]
XI	**Non-Verbal Communication:** Offers useful insights and techniques for understanding how an instructor communicates non-verbally and for interpreting non-verbal cues from students.[12]
XII	**Systematic Design of Instruction:** Introduces a model for designing a course in an established curriculum and examines the role of classroom teaching in that model.[13]
XIII	**Making It Work at Your Institution:** Discusses how the techniques and principles covered at ETW can be incorporated under conditions that exist at other institutions such as larger class sizes, no blackboards, etc.

Table 1. Content of the ExCEEd Teaching Workshop Seminars

Laboratory Exercises: The participants spend close to half of their ETW time in small group laboratory assignments. A team consists of four workshop participants, a junior mentor (usually

a recent graduate of ETW) and a senior mentor (a veteran instructor with many years of successful teaching experience who is also well-versed in the methods of the ETW). Each participant teaches three classes (25 minutes, 55 minutes, and 25 minutes, respectively) in his or her area of expertise while the other members of the group role-play as students. Afterward, each class is assessed. Initially the critiques are provided by the senior mentor, but as the workshop progresses, the fellow participants provide the assessments. Ultimately, the participant who taught the class provides a self-assessment. Each participant receives written assessments and video recordings of his or her classes.

Figure 2: The ETW is a hands-on workshop that encourages the use of physical models to appeal to different learning styles and enhance understanding[7]

The learning objectives of ETW have been defined as follows:

- Explain what constitutes effective teaching.
- Apply Felder's learning styles model to the organization and conduct of a class.
- Use classroom assessment techniques to assess student learning.
- Organize a class.
- Deliver classroom instruction.
- Assess a class from a student's perspective.
- Self-assess your own class.

To achieve these objectives, the overall design of the ETW has been derived from a research-based conceptual model of the human learning process, developed by Apple *et.al.*[14] to enhance students' skills as self-learners. As adapted for Project ExCEEd, this Model Instructional Strategy consists of eight major steps representing the critical elements of a high-quality learning experience, as illustrated in Figure 3.[15]

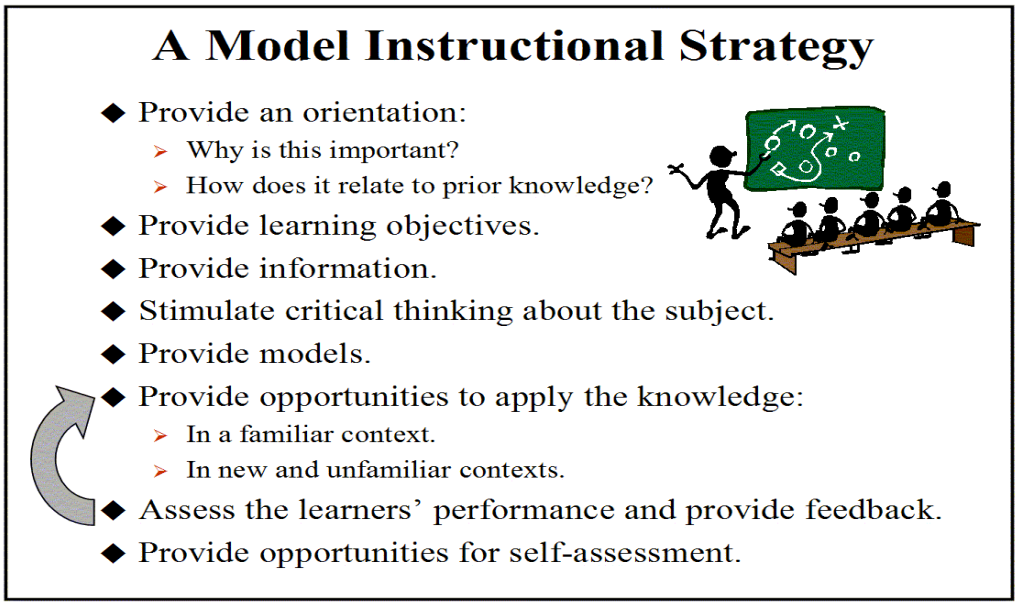

Figure 3. Model Instructional Strategy on which the design of ETW is based

The ExCEEd Teaching Workshop strives to demonstrate and then develop good teaching skills. To achieve this goal, "good teaching", at some point, must be defined and demonstrated.

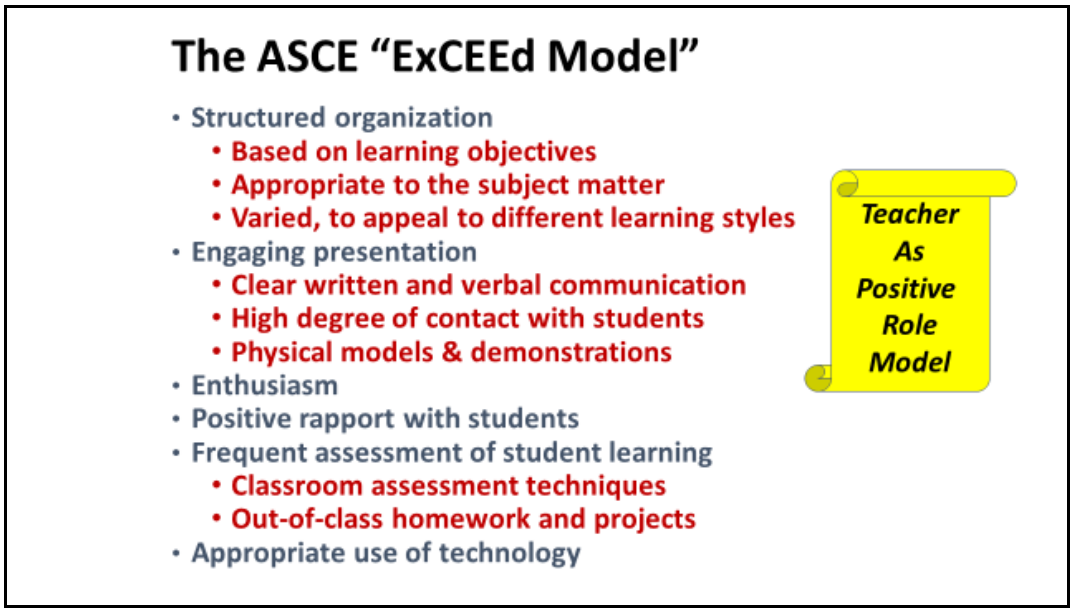

Figure 4: The ExCEEd Teaching Model is used throughout the ETW to define and assess good teaching

The ExCEEd Model[16], shown in Figure 4, was developed by examining what attributes make a good teacher, how students learn best, and what tools are available to assist the teacher. The model is based on teaching and learning theory from the literature, supported by years of practical experience from veteran instructors. This model is explained and justified in Seminar II – Principles of Effective Teaching and Learning.

Once developed, the model is used in every follow-on seminar, becomes a basis for teaching assessment in the practice classes, and contributes to the overall structure of the workshop. The ExCEEd Teaching Model is deliberately simple, and if an instructor is effectively doing everything in it, then he or she is most likely a good teacher.

Diversity and the ETW Population

There has been some tracking of diversity in the ETW participants and faculty. With 980 graduates of the program over 20 years, 29% were women and 71% were men. Considering that 17.7% of tenured civil engineering faculty nationwide are women[17], the percentage of ETW women graduates is promising. After initially staffing the ETW with faculty mentors and assistant mentors from other sources in the first years of the workshop, the faculty in later workshops were recruited almost exclusively from past ETW participants who performed well in the workshop and expressed a desire to join the faculty. The ASCE Committee on Faculty Development (CFD) deliberately chose to recruit women and ultimately women have comprised 36% of those ETW graduates who joined the ETW faculty.

Figure 5: The ETW has deliberately recruited women faculty to teach some of the demonstration classes

The ethnic diversity record of the ETW is less clear. The ETW registration form has included an optional entry for gender and ethnicity. In the most recent version, the *gender* option has been replaced by *preferred pronoun*. While there is a general sense of the ethnic demographic of the ETW, there has been no formal accounting and no definitive effort to calculate percentages of white, African-American, Hispanic or Asian populations in either the participants or the faculty. The percentage of ETW participants who are LGBTQ (lesbian, gay, bisexual, transgender, queer/questioning) is totally unknown and could not even be speculated.

The ETW was developed over 20 years ago by a group of predominately white males. As times changed and a more diverse population attended the workshop, joined the faculty, and joined the ASCE CFD, there has been an increased awareness of diversity issues and more actions taken to create and accommodate a more diverse workshop. This was

particularly true in developing the small group teams that teach together during the sample classes and assessments. Considerations in the assignment of mentors and assistant mentors and in the distribution of participants included gender, academic sub-discipline, teaching experience, global location of undergraduate degree, and current university. Similar assessments were made when assessing applicant files and assigning applicants to different workshop locations. There was a concerted effort to increase the number of women presenting seminars and conducting demonstration classes (Figure 5). While diversity was a key factor in choosing and assigning applicants, it has received less emphasis in developing and revising the curriculum. That is the subject of this paper.

Diversity and Inclusion are Important

Interpersonal rapport with all students and the relationship between a student and a teacher is clearly an important factor in effective teaching. Rapport with every student becomes more difficult as we become more globally conscious and technology brings ever closer contact with a more diverse population. The college classroom is becoming more diverse as white people are predicted to become a minority in the U.S. by 2050, more first generation college students (many who have lived in poverty) are enrolling in college, more social identities such as LGBTQ are being recognized, military veterans are using college benefits, and nontraditionally aged students are returning to school. Providing a welcoming environment and genuine cultural understanding for every student requires a broader outlook, a new vocabulary, increased sensitivity, greater awareness and in some cases specialized training.

The student-faculty and student-student relationships are important because a feeling of belonging has been shown to increase academic achievement and sustained success in school[18, 19]. Students can focus their thoughts on their studies when they feel safe and welcomed[20]. Marra *et.al.*[21] identified lack of belonging as a primary reason that students leave engineering. Carter and Wilson[22] found that interaction with faculty members is the single biggest factor in persistence with students of color. Vogt[23] reported that academic integration positively influenced self-efficacy, which affects effort and critical thinking. Svinicki and McKeachie[24] contend that responding to the individual student may be the single most important way to improve your instruction. The concept is undisputed as these references come from both the diversity and inclusion literature and the interpersonal rapport seminar in the ETW. The challenge is to provide this benefit to all students regardless of their background.

Building Culturally Inclusive Classrooms

Much of the ExCEEd teaching workshop is a nut and bolts experience on how to teach, where the educational theory is explained, but the focus is on specific ways to implement that theory to create an effective learning experience for students. The culturally inclusive literature also lists many specific things a teacher can do to make a classroom more welcoming and effective.

Gorski's List for the Equitable Educator

Through EdChange and the Equity Literacy Institute, Gorski[25] offers a list of 20 things a teacher can do to become an Equitable Educator. There are other such lists with considerable overlap between them, but this list is fairly comprehensive and representative of the literature. Gorski's list can be divided into four categories: those items where the ETW does a reasonable job of including them in the workshop, those not included in the ETW but could be, those that specifically fit into the attitudes and educational awareness of the individual faculty member, and finally those not included in the ETW because they are not an easy fit into engineering or for some other reason.

Starting with the first category where the ETW offers coverage, but could still probably do better, these include:

- *Learn the correct pronunciation of a student's full name.*
  The ETW heavily emphasizes learning all student names in both the Questioning and the Interpersonal Rapport seminars and provides useful techniques for doing this quickly. If a goal is to ask every student a directed question every class, it cannot be done effectively without knowing every student's name. Interpersonal Rapport is development of a relationship with students and requires that the teacher know a student's name and interests.[3, 26]
- *Solicit anonymous feedback from students and be willing to change as a result*
  The Interpersonal Rapport seminar also emphasizes flexibility and accommodation as a means of building trust and respect. The ETW offers Classroom Assessment Techniques for attaining anonymous feedback from students and emphasizes that the task is not complete until the instructor has responded to the students on their feedback and discusses the degree to which that feedback will be implemented.
- *Be thoughtful about the assignment of homework; some students do not enjoy the same level of access to educational materials and resources*
  The seminar on Planning A Class focuses heavily on the selection of homework assignments and the need for them to synchronize with both in-class activities and the stated lesson objectives. It is understood that all students must have easy access to the materials needed to complete the assignment. The Systematic Design of Instruction seminar presents a methodology[13] for developing a course. A critical step within that process is analyzing the students, their background, their capabilities, and the materials they will have available to them.
- *Encourage students to think critically and ask critical questions about all of the information they receive*
  A key component of the Model Learning Strategy is critical thinking. The Teaching and Learning seminar includes a compendium of learning principles[26] that include students learning best when they can connect the material to something they have seen before, when they can organize material in a framework that is familiar to them, and when they can find a practical application for the material. All of this requires critical thinking and intellectual curiosity.
- *Take personal responsibility and consider one's own contribution to the disengagement when a student falls behind or is disruptive before looking for fault elsewhere.*

A key component of the ExCEEd model is the instructor as the leader and positive role model. The instructor is encouraged to take a shared responsibility for student learning. When thing go awry, the Interpersonal Rapport seminar discusses how blame can also be shared and the instructor needs to critically examine his or her role in the process such as: was the test too long, were the course objectives poorly phrased or did the instructor say or do something that chilled the classroom?

- *Celebrate every moment spent on critical self-reflection about teaching*
  The ETW places a premium on reflective self-assessment. The assessment of the third participant class relies heavily on self-assessment, with the intent that workshop participants will continue to develop these skills at their home institutions.

There are several items on the list that are not currently in the ETW but could and probably should be incorporated:

- *Build coalitions with educators who are different from me in terms of race, sexual orientation, gender, religion, home language, class, (dis)ability, and other identities*
  The suggestion of building a coalition is a great one and it could easily be incorporated into the Interpersonal Rapport seminar. The best, easiest, and most fun way to gain understanding is a first-hand account from someone who has personally experienced it and becomes a friend.
- *Teach about issues like racism, sexism, poverty, and heterosexism*
  Sue, Arredondo and McDavis[27] suggest that active engagement with those of traditionally marginalized groups is the best way to challenge our stereotypes. Teaching about racism, gender and heterosexism might easily fall into the third or fourth category with the argument that it either requires specialized training or is not part of an engineering curriculum. The ETW could take the same approach it did with drama and engineering. In the Speaking Seminar, instructors are encouraged to enhance their presentations and come outside their comfort zones by introducing drama into their engineering classes. After making a deliberately misleading argument that there is no drama in engineering, the seminar illustrates that examples abound where drama can be used effectively in even the most mundane aspects of engineering and encourages everyone to try it. The same approach could be taken towards gender, racism and religion in engineering, but it would take some creativity and a champion to make it work.
- *Take advantage of the resulting educational opportunities when issues such as racism or heterosexism arise in the classroom*
  The same pitfalls involved with the previous suggestion also apply here, but even more so. Rather than being able to prepare and control the interaction, this suggestion implies being able to address racism and heterosexism spontaneously as the situation arises in the classroom. The risk is much greater and requires the teacher to be much better trained and aware to be successful. Weinstein and Obear[28] found that many faculty members are uncomfortable addressing biases in the classroom for fear of inflaming emotions and making a situation worse. In the ETW Speaking seminar, the use of humor is introduced as an effective but very risky means of stimulating positive emotion in the students. The risk is stimulating negative emotion if the humor is viewed as offensive by any of the students. The seminar concludes that it is

best to avoid humor involving sex, politics, and religion and safest to stick to self-deprecating humor. This advice is to remain safe to avoid injured feelings, while the diversity and inclusion advice seems to suggest that teachers should venture outside their comfort zone, face the issues in a respectful and professional manner, and allow students their special experience and identity. Boysen and Vogel[29] state that ignoring bias in the classroom implies complicity and that any response is better than none at all. That paradox should at least be introduced in the ETW.

- *Reject the myth of color-blindness and be open and honest about this reality, because color-blindness denies people validation of their whole person.*
  There are elements of color-blindness in the ETW, especially when it advocates treating all students the same. There are however times when color-blindness is abandoned such as introducing the Mann study[30] in the Interpersonal Rapport seminar where different categories of students (independent, sniper, hero, etc.) have different needs and capabilities and therefore should be handled in different manners for them all to be successful. Even in the Questioning seminar which advocates that each student receive a representative share of the questions, it is further suggested that as the instructor gets to know the students and their capabilities, the questions and their cognitive level can be targeted to make all students successful. The consideration of eliminating color-blindness could be expanded and addressed more intentionally.
- *Advocate for equity for all underrepresented or marginalized students*
  It is an easy pitfall to commit to and advocate for one particular group of underrepresented or marginalized students while neglecting another. The same pitfall is introduced in the Questioning seminar with the teacher who asks only volunteer questions, has a wonderful discourse with the three or four students who volunteer, but leaves the other students behind. The same would occur if the instructor is sensitive and responsive to racial inequality but ignores gender or religious inequality. While examples on how to avoid this would certainly be helpful, a warning of this easily encountered trap should at least be made in the ETW Interpersonal Rapport seminar.

Many of those items on Gorski's list specifically fit into the attitudes and educational awareness of the faculty member. They are important but require specialized knowledge and training that most engineering faculty do not have. The training is more complex and detailed than can easily be incorporated into an already full one-week teaching workshop. The workshop could however include coverage of the importance and content of such training with the hope that it will plant a motivational seed to increase one's own education on the topic. A specific suggestion is made later in the paper. The list includes:

- *Overcome how systems of oppression might be affecting student success*
- *Teach about the ways people in the subject areas advocated for either justice or injustice*
- *Reject deficit ideology—find solutions that focus on fixing the conditions and practices that marginalize communities*
- *Understand the relationship between intent and impact…take responsibility for and learn from impact.*
- *Understand inequity as a systemic rather than inter-personal issue and recognize the ways conditions and inequities within the education system affect students.*

- *Don't essentialize or simplify students from identity groups into a single category*

Finally, some items on Gorski's list are not included because they don't easily fit into engineering or for some other reason:

- *Ensure course materials are free of bias*
  It is often difficult for engineers to see bias or inequity in their course materials. It is easy to understand that if people only watch Fox news, they will probably have a different perspective than those who only watch MSNBC. The bias is clear. Similarly, courses involving history, political science, social science appear much more susceptible to author bias than engineering courses that analyze forces on free body diagrams, apply equations of equilibrium, and design structures to carry a specific load. Whether one learns Mechanics of Materials from Beer & Johnson, Hibbeler, or Gere does not seem to matter much in terms of content or cultural perspective. Some would claim that Newton's Laws are free of bias but sample problems could easily be written in such a way as to disadvantage students without particular experiences or backgrounds. A sampling of specific examples of that would be helpful. What seems to be more important in the selection of the engineering textbook is that it has lots of illustrations to appeal to the visual learner, example problems to appeal to the sensory learner, clear explanations, a friendly presentation of the material, and notation/sign conventions that the instructor is willing to use. This could be emphasized more in the ETW, since it is the marginalized student who may be less likely to grasp the concepts from classroom discussion alone and is more likely to need an effective textbook for reinforcement.
- *Offer an integrated equity-based curriculum, not just during special months or celebrations*
  This suggestion seems to fall into the same category as the previous in that many courses in a technical engineering curriculum offer little opportunity to support this. Even so, there are some courses that do and those should be carefully leveraged. With issues of sustainability and resiliency becoming better integrated throughout the civil engineering curriculum, there will be more natural opportunities for discussions of social, global and political and equity issues throughout the curriculum. Even the special months or types of equity celebrations can be a more difficult fit into an engineering curriculum. There are rightfully student organizations in most universities and even nationally affiliated professional societies such as the National Society of Black Engineers, Society of Women Engineers and Society of Hispanic Professional Engineers that promote inclusion and encourage a sense of belonging. An engineering program that attempts to support one of these organizations needs to support them all in order to show equity for all underrepresented or marginalized students. Because engineers are a minority entity unto themselves with their own culture and stereotypes, it may be more practical, collaborative and inclusive to celebrate that identity as a single body. Thus engineers are known to celebrate National Engineers Week, National Metric Week and Pi Day which honor their contributions to society without any discernable cultural bias.
- *Ensure that students from marginalized communities are not placed unjustly into lower academic tracks*

Individual faculty members are not usually in the position to determine to which academic track a student is assigned. Those are often decided by university policy and administrators. The premise of this suggestion is that members of marginalized communities are placed lower because of a stereotype associated with their demographic or because of poor performance on standardized tests which only measure a student's retention of facts. Brown[31] promotes an intentional learning environment that incorporates performance, projects, portfolios, laboratory results, and application of knowledge to better assess the capabilities and placement of tracked students. The ETW also encourages using a variety of assignments based on the time available, the purpose of the assessment, and the cognitive level of the learning objective as part of the Planning a Class seminar and the development of in-class and out-of-class activities. The ETW should, as a minimum, include the added benefit of assessing a wider diversity of students by using a variety of assignments in this discussion. Of course, this wider variety of assignments will be more successful in smaller class sizes where the student-faculty interaction is greater and effective personalized feedback is more available. The ETW certainly promotes this (Figure 6), but the trend in many colleges today is in the opposite direction.

Figure 6: The ETW is a collaborative workshop with lots of personalized feedback and support.

Other Hints from the Literature

Malone and Lepper[32] suggest with respect to the culturally inclusive classroom that learning occurs most when students are challenged and are convinced that they can meet these expectations. Zeichner[33] contends that students learn best when the course material is made personally relevant to them. Kohn[34] advocates that students are expected to take an active part in their own learning and this is best done through student/faculty and student/student interaction. According to Schunk[35], students feel greater efficacy when they are given short-term, very specific objectives. These practices are all key elements of the ETW, more because they are universal principles of how all students best learn, rather than being unique to a culturally diverse demographic. The Teaching and Learning seminar promotes these same principles while citing other sources[3,26]. The ExCEEd

model was built on these principles. The concept of lesson objectives is so important that an entire seminar is devoted to them introducing Bloom's taxonomy[5] to attain the appropriate cognitive level of the objective and providing a comprehensive list of action verbs to help attain it. An entire laboratory is devoted to creating good lesson objectives for the practice classes. What the seminar could do to improve is to emphasize that lesson objectives are probably most valuable to the first generation college students who arrive at college with fewer tools in their toolbox. The students who come from poor families have often not been exposed to nightly homework, fast-paced instruction, and nuanced expectations from teachers. Students in poverty are more likely to have been exposed to unlicensed teachers, higher student-faculty ratios, fewer innovative teaching methods, and less exposure to technology[36]. Students of color from low-income families are more likely to receive skills-based instruction while affluent white students are more likely to have received a more progressive education with high-order thinking.[34] Lesson objectives are even more invaluable for these students who may be less able to discern what is important and how best to allocate their time than other students. The inclusion literature recommends Universal Instructional Design[37] for making classrooms more student-focused and inclusive. Specific elements include well-defined expectations, timely feedback, variety of teaching techniques, use of technology, and student-faculty interaction[38]. The similarity with the ExCEEd Teaching Model is uncanny.

The ETW Questioning seminar often meets resistance from participants. The seminar advocates that directed questioning where the instructor asks a question, pauses, and calls on a student by name[10]. If done in a positive and inclusive manner, it can be effective for all students. ETW participants often express reluctance to include those students who may initially be uncomfortable participating. The inclusivity literature provides some helpful hints that could be incorporated into this seminar. Samuels[39] offers techniques such as journaling or group sharing which offers a better chance for success to those students who need more time to create a more coherent and confident response to a question. This could be particularly effective for students who are shy, have a learning disability, or speak English as a second language. Heath[40] suggests that cultural differences may affect the time it may take a student to answer a question or the manner in which it may be answered. The benefits of having all students answer direct questions are many but such advice is helpful and should be considered.

Samuels Six Questions for an Inclusive Curriculum

Samuels[41] advocates that an inclusive curriculum requires teachers to reflect on six questions:

- Do I use a variety of teaching strategies to accommodate diverse learning styles?
- Do the materials I use in my courses help students understand historical, social, and/or political events from diverse perspectives?
- Are the text/readings I use written by authors from diverse backgrounds (different races, sexual orientations, genders, abilities and so on)?
- Do I assign projects that enable students from diverse groups to work collaboratively and effectively?

- Do I enable students to demonstrate knowledge in multiple ways that reflect diverse learning styles?
- Do I make my cultural inclusiveness transparent to students?

Some of these questions and the degree to which they are or are not incorporated into the ETW have already been addressed. The first question refers to diverse learning styles which is a learning objective of the ETW and the subject of an entire seminar. The ETW introduces Felder's[4] learning style dimensions of sensory vs. intuitive, visual vs. verbal, inductive vs. deductive, active vs. reflective, and global vs. sequential. These are introduced along with examples of how classroom instruction can appeal to all of those learning styles. The Planning a Class seminar examines how appealing to different learning styles is a conscious part of class preparation. The ETW is currently struggling with how to accommodate a recent educational body of research that suggests that learning styles do not really exist.[42,43,44] This is a challenge that the ETW and the diversity inclusion community will have to deal with together. In furtherance of the fourth question, the ETW does advocate a variety of assignments and has suggested methods for assigning groups to enable students from diverse groups to work together.

Making cultural inclusiveness transparent to students is not explicitly covered in the ETW. The workshop does emphasize the teacher as the leader and role model, the need for transparency, and that small consistent actions throughout a semester are preferable to a dramatic action in the beginning or end[3], but it does not specifically address diversity. Kitano[45] suggests a statement in the syllabus about the importance of a multi-cultural approach. It is a good idea that signals the faculty member's commitment to welcoming everyone, informs the students that the class will be inclusive, and sets expectations for standards of classroom behavior. This could be included in the Interpersonal Rapport seminar. This seminar addresses ways to build rapport inside and outside the classroom but it does not address the importance of consciously doing this for all populations in the class. If the teacher can be equally conscious of attending a woman basketball player's game, a Hispanic student's award ceremony, and a gay student's support group, the transparency will be obvious and powerful from the teacher's actions alone. Samuels[41] proposes ice-breaking activities in class to welcome students, get to know one another, to challenge biases, and discover common ground. The ETW embraces this concept throughout the workshop (Figures 1 and 7).

Figure 7: ETW games and social activities help create cohesion within the groups.

Transformative Process of the Individual Faculty Member

The biggest gap between what is taught in the ETW and what is needed by the culturally inclusive educator seems to come from the attitudes and beliefs of the educator herself, as discussed when addressing Gorski's list. It is well established that exclusion occurs due to color-blindness, stereotype threat, implicit bias, and micro aggressions in even the most well-intentioned individuals. The reasons for this are explained through critical race theory[46], privilege theory[47], and social development concepts[48]. Samuels[41] proposes an eight step transformative process that an educator must go through to build multicultural inclusiveness:

- Discover our own biases
- Reflect on our systemic socialization
- Challenge our assumptions
- Reflect on our own identities
- Contemplate our emotions
- Reflect on our own behavior
- Consider our purpose
- Commit to this work

This is a long personalized process involving reflection, critical thinking, intellectual honesty, and a willingness to think differently. It may require outside training or facilitation to be successful and may be harder and take longer for some than others. It is important, but it is way too much to fit into an already full workshop whose purpose is intense coverage of the many aspects of being an effective teacher. What the ETW can do is introduce this journey, explain why it is important, outline these steps, share resources, and provide the motivation for participants to start the process. This could be included as part of the Interpersonal Rapport Seminar.

Final Suggestion

As a final suggestion, all workshop lessons and supporting material should be reviewed with an eye towards diversity and inclusion. A lot of small improvements will certainly be uncovered by looking at the photos, critically reviewing the terminology and asking whether everyone would feel welcome by this coverage. A simple example exists from the classification of Lowman's Two-Dimensional Model in the Teaching and Learning seminar. In response to requests for specific examples of Lowman's teacher classifications, Estes and Welch[49] developed a database of teachers from existing movies and classified them according to Lowman's Model. Clips of these movies are shown in the seminar. In 2018, Farnsworth et.al.[50] updated the study, found clips of teachers in more modern movies and developed more detailed classification techniques. The only problem was that in both cases, all of the teachers in both efforts were white males. It certainly would have been worse to have made the incompetent teachers members of an under-served population and all of the exemplars white males. But there are plenty of movies available that show women and ethnic minorities as examples of all classifications of teacher. We just need to be willing to look.

Conclusions

This paper has compared the current content of the ExCEEd Teaching Workshop to existing literature on what constitutes a diverse and inclusive educator. There were many relevant areas that are well covered in the ETW such as effective teaching and learning practices, objectives, learning styles, classroom assessment techniques and interpersonal rapport. But there were also some gaps, some of which can be easily accommodated and some that cannot.

Two options seem to be creating a separate seminar that covers this increasingly relevant and important topic of inclusion and diversity or to incorporate the coverage across the existing workshop curriculum. This paper recommends the latter.

The majority of this topic falls into the category of interpersonal rapport. As such that seminar should be significantly revised to explicitly include diversity and inclusion throughout this seminar to ensure that the relationship and trust that is forged between the faculty member and the student consciously includes all students regardless of their background. This paper offers suggestions as to how the seminars on teaching and learning, learning styles, objectives, planning a class, questioning, and classroom assessment techniques can be slightly altered to reinforce the principles of diversity and inclusion as a consistent theme throughout the workshop. Finally, every seminar and every piece of training literature should be reviewed with the specific awareness of considering people of all races, genders and background.

Clearly, this is not the final solution to a field that continues to evolve very quickly, but it represents a good start. Hopefully these steps will provide lessons learned and productive feedback that will lead to even better changes in the future.

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