QED NEWS

Quality in Education K–12 • Higher Education • Workforce Development

ASQ Education Division
The Global Voice of Quality™

Editor: Marianne Di Pierro, Ph.D.

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"The journey of a thousand miles begins with a single step."

from the Tao Te Ching

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VISION STATEMENT: Shaping the Future Through Quality in Education and Professional Development

QED News *is the ASQ Education Division's newsletter for members with articles contributed by members. It is published twice a year, in the fall and spring.*

Message From the Chair

by Cindy P. Veenstra, Ph.D.

Greetings! Welcome to this spring issue of the *QED News*! Since the theme of this issue is on evidence-based continuous improvement, this chair's message focuses on the fall survey and the corresponding directions of the Education Division leadership team. This past fall, we conducted two surveys: one of members who did not renew and the other a voice-of-the-customer (VoC) survey sent to all members. I am happy to report that the fall VoC survey results showed that **74 percent of the respondents were satisfied with our Division**; this is a 9 percent increase from the fall 2010 survey (65 percent). In addition, 22 percent of the respondents were neutral and 4 percent were dissatisfied. Using the average satisfaction rating, this is the highest we have in our records. We attribute this to the introduction of the peer-reviewed *Quality Approaches in Higher Education* journal, the *Workforce Development Brief* publication, as well as the quality of this newsletter.

The survey also indicated some areas that require more emphasis through enhanced communication: for example, the Division has three areas of focus: K-12 (primary and secondary education), higher education (2-year colleges through graduate programs), and workforce development (training and professional development in the workplace). At our website, we try to display articles in each of three areas in the Featured Content and Learning Opportunities sections. We have one or two leaders who chair activities for each of these areas and we sponsor major activities in all three of them. From the survey, we saw that the average satisfaction level was equal across the three areas of focus. It is rewarding to us to receive this feedback.

I would like to address a repeated comment concerning minimal activities for higher education compared to K-12. In the past two years, we have ramped up on higher education activities considerably. Please see my separate article on our higher education publications and networking on p. 6 and 9 . I hope this information helps to clarify our higher education activities, on the Division level and in collaboration with the ASQ staff.

Additional Survey Results

The membership is satisfied with the Division's website, which uses the ASQ template (average of 4.0 with 5 being *very satisfied*). The website design will remain the same. Two-thirds of the respondents indicated they would like to receive this newsletter as an e-mail only; therefore, we will continue the practice of delivering our newsletter by e-mail. With regard to the question of which of our three conferences was best for networking on quality topics in higher education, the vote was with NQEC (51 percent). With this direction, we will support stronger higher education sessions at NQEC, while also supporting the excellent K-12 sessions, which are a tradition for this conference. Your feedback counts!

Statistical Modeling of Member Satisfaction

Using the survey results, I did some statistical modeling of overall Division satisfaction. The best-fit model showed that member Division satisfaction was a function of both the quality of the website and library, and satisfaction with communication from leaders (an adjusted R^2 of 55 percent).

Member Satisfaction = 1.37 + 0.42 quality of website and library
+ 0.31 satisfaction with communication with leaders

This is a significant model to guide us; it includes both the importance of content (stressed in survey responses and comments) and communication with leaders. I invite you to look at our content in our library, which has been improved with a new summary section; we will continue to add significant content to the library. We will continue to communicate with you through our e-mail blasts (from "ASQ Education Division") and post recent news on Twitter at @ASQ_EduDiv. (Look for the link from the Division website.) I would like to hear your suggestions regarding better communication (chair@asqedu.org). Also, feel free to communicate with any leader; our e-mail addresses are on the last page of this publication. We want to be accessible to you and help you with your networking and navigating the website.

Summary of Activities

Our business plan includes five webinars for 2012, our second annual Advancing the STEM Agenda Conference, and support of the NQEC and WCQI conferences. By the time this newsletter is published, we expect to have two taped podcasts available: one on Baldrige in K-12 education and the other focusing on using student satisfaction data for continuous improvement.

NQEC was held in Indianapolis near the capitol. NQEC brainstorming session with division leaders, left to right are: Becky Martin, Jay Marino, Julie Furst-Bowe, and Cindy Veenstra

At the NQEC conference in Indianapolis, we had a brainstorming session on activities, discussed the idea of a PLC wiki, and reviewed the Division's inputs for 2012 NQEC focus areas (some were adopted by ASQ). We were joined by division leaders Julie Furst-Bowe, Becky Martin, Jay Marino, Fernando Padró, and Julie Gabelmann from ASQ headquarters. It was great to get together! Many thanks to Greg Mazzotta for greeting and informing conference participants at our NQEC division exhibit! (Be sure to read Greg's article with his perspective on page 12.)

At NQEC I was introduced to the one-page strategic plan by K-12 chair, Dr. Jay Marino. Together with the leadership team, we developed an overall strategic plan that focuses on our vision, mission, beliefs, goals, and guiding principles and that recognizes our members like to network in different ways. It was approved in January, see p. 25 for details. From these brainstorming activities, we are better prepared to go forward in the year with our activities and conferences.

Join us at our Conference!

We hope to see you at one of our conferences. We ask that you help us get the word out, especially for our Division's Advancing the STEM Agenda Conference; it is truly a unique STEM education conference with our focus on collaboration with industry and quality systems thinking for STEM.

Welcome our New Leaders

We have some new leaders on our leadership team. Ardith Beitel from The Boeing Company, joined us as our division treasurer in November. In December, Greg Mazzotta joined us as our marketing chair for the STEM Conference to help us recruit conference supporters. James Teeple, from Ivy Tech Community College recently became our community college chair. He will be spearheading new projects for networking on quality issues in community colleges. Vicki Fawcett-Adams from Shenandoah University is our new website liaison.

We are the "little ASQ division that could." In the last two years, we have accomplished much; in the next two years we expect to continue our efforts in producing significant publications and sponsoring events on quality in education and professional development.

The Observation Tower:

Publish and Perish—The Imperiled World of Academic Integrity

by Marianne Di Pierro, Ph.D.

Recently, in the midst of preparing to address a group of National Science Foundation (NSF) Alliance for Graduate Education and the Professoriate (AGEP) doctoral students about retention and overcoming the challenges of the dissertation, I reviewed a series of articles. One of the articles was co-authored by a full professor of educational leadership and the professor's doctoral advisee from an institution that will remain unnamed.

As I read the article, I was aware of a certain sense of déjà vu that characterized the text, the phraseology of the narrative appearing familiar, like a distant echo reverberating across time. The realization was reinforced by the turn of the phrases and the authors' word choices, which had an uncanny resemblance to my own writing style. My impression was that I had read this *before*, had seen it *somewhere*, but could not be certain. I also noticed a unique punctuation style, which I must confess I have striven in my own writing to avoid: yet, here too was that same distinctive style that occasionally employs the use of hyphens in place of commas, for emphasis. As I perused several of my publications in search of an answer, I recognized that the majority of the information contained in the article appeared to be taken verbatim, and without attribution, from the conference proceedings, actually, a complete paper, for a presentation that I gave in Las Vegas, NV, in May 2006.

General procedures in instances such as this require notification of the journal editor, which in this case also happens to be one of the authors. Thus it is that I established contact with the professor's college dean, upon whom I prevailed on February 3, 2012, to act as an intercessor and to investigate the matter via a formal review, which I have been assured will take place.

I prepared three documents for the dean's perusal: 1. the conference proceedings; 2. the journal article that reflected the alleged plagiarism; and 3. a crosswalk, evidence-based analysis, that I conducted between the conference proceedings and the article, for the purpose of identifying the exact areas of concern, as well as establishing the extent to which information that I wrote appeared without attribution to me. I also apprised the research integrity officer at my institution, as well as my dean, of the circumstances, thinking it best to keep them informed as I move through this process.

I experienced a good deal of discomfort in organizing these materials, especially in executing the crosswalk. It was painful to see the bastardization of my work, my research, my thought processes, conclusions, recommendations, my *Self*, and yes, even the use of those hyphens, in the comparison from the narrative text of the conference proceedings to the *adaptation*. I had been erased and was rendered invisible. Not once was I quoted or my name mentioned. The authors simply seized these data, interspersed a few new headings into the text, and absconded with my intellectual property, their own inferior writing skills unquestionably hemorrhaging through the few lines they did manage to write themselves.

Now, I can forgive a simple mistake or a citation error: many acts of *plagiarism* result due to lost or missing citations or poor paraphrasing. An inadvertent error is worthy of forgiveness—as long as it is rectified and we convert the occasion into a

continued on page 4

The Observation Tower continued from page 3

teachable moment. (See my article in the *Journal of Faculty Development:* "Personalizing Academic Misconduct: An Approach for the Graduate Classroom," May 2011, Volume 25 (2).) However, it is not the case when over 90 percent of the material used in an article is not cited or is taken verbatim, without the use of quotation marks or without attribution to the author. Perhaps the two individuals who listed themselves as authors felt entitled because the genesis of their article was only a conference paper, not a published article in a peer-reviewed journal, which it now will become. I am laying claim to my bastardized child in the form of this column as well as in a published article that will bear *my* name, as author.

I cannot help but wonder at the provocation for the *authors'* actions. In the world of academe, we teach that information is available for the taking, as long as appropriate citation is in place. We give credit to and honor the intellectual property of others through the use of citations and through narrative references that recognize their contributions and the manner in which those individuals inform the scholarly dialogue by virtue of their research. In this instance, we have a full professor and the professor's doctoral advisee ignoring ethical duties and responsibilities and transcending the code of scholarly conduct.

What *were* they thinking?

Leafing through the professor's CV to discover page after page of journal articles only raises my cynicism to yet another level. Admittedly, my view is pejorative, and while I do not know the authors' individual histories, I am a proponent of the Greek philosophic perspective that teaches us that a *man is known by his history*, which in this instance, and barring information to the contrary, may well be dubious. The professor promulgates the concept of research and publication for evolving scholars in a college newsletter and acknowledges that the university is a leader in publishing peer-reviewed journal articles by doctoral students in the field of educational leadership. After the title of the article, the professor ironically adds, "Written by Professor First Name, Middle Initial, Last Name, with honorific," a statement that ensures absolute ownership of this piece. And yet, the professor ignored personal and professional accountability by generating the appearance of having co-authored an article obviously not written by either of the two individuals listed as *authors*. Such deceptions set up a series of oscillating contradictions and cause me to question the validity of the entire scholarly production proclaimed in that newsletter. In this instance, *leading (or following) by example* may exert a profoundly negative effect upon an entire generation of emerging scholars, all competing for entry into the ivory tower.

For my part, I have done my due diligence: carefully traced the evidence of alleged plagiarism and established the necessary contact in good faith that an investigation will be conducted and that the two individuals involved will retract their article, remove the article entries from their CVs and from the Web, and issue an apology to me. What more, if any, I can expect remains unknown.

Among my inner circle of associates, news of the transgression is met initially with *shock*. People are *shocked*, and they say so. Then, the responses become hushed, almost funereal, and people actually issue a kind of condolence and say they are sorry this happened. Indeed, we *are* at a funeral, because what I have observed in these reactions is a kind of recognized loss that moves well beyond the abduction of intellectual property and the kidnapping of someone's words and ideas.

The loss goes to the heart of who we are or who we claim to be as human beings, as individuals, as educators. The loss goes to the vapid ideas of entitlement and privilege, without the discipline, commitment, dedication, and old-fashioned hard work that is the hallmark of the scholar. It goes to the heart of the example that we set through our actions, and when these actions fail to measure up, regret and loss are the logical outcomes. And so, yes, people are sorry.

The fact is clear that plagiarism has become a global issue with few, if any, consequences, unless cash profits are involved. When we train emerging scholars, are we teaching them the principles of accountability, social responsibility, continuous process improvement, and the *value* and *discipline* of the incremental steps that characterize the journey to the academic life, and that embody Kaizen? Are we instructing them that all of these quality initiatives are weighted in philosophical mores grounded in ethical frameworks? Are we teaching them that assessment begins with *honest* self-evaluation and commitment to higher principles that soar well beyond the ego? If the outcomes of our educational process lead students to privilege the number of ill-gotten publications over the value of scholarly research and the discipline of writing then we have not taught them well—and for this, *we* are accountable.

Continuous process improvement is not simply a technical activity—we don't *do* quality, as if it were an item on a checklist. It is a lived philosophy through which we take stock of our actions and their impact, and we ask ourselves, in each step along the way, if these actions serve the greater good.

The actions of the professor and the doctoral advisee are not benign. They affect all of us who care about the quality of our work and who hold ourselves accountable to ourselves and to each other. Like it or not, we are all role models, tethered, if only with gossamer threads, to a standard of behavior that should be beyond reproach.

I do not want to imagine or live in a world other than that.

About the Author

Marianne Di Pierro, Ph.D. is director of the Graduate Center for Research and Retention at Western Michigan University. She conducts research on graduate education and also participates in national research projects on doctoral education. She is a dissertation coach, as well as a conflict resolution strategist, working with graduate students and graduate advising faculty. Di Pierro is also associate editor of the *ASQ Higher Education Brief*, as well as editor of the ASQ Education Division Newsletter. Contact her at marianne.dipierro@wmich.edu or at 269-387-8249.

Education Division Welcomes Ardith Beitel as Treasurer

by Marianne Di Pierro, Ph.D.

Ardith Beitel is an internal auditor for Boeing Test and Evaluation, based in Seattle, WA. Her work life is in manufacturing QA, predominately in automotive, with print/packaging and now aerospace added to the mix. Her favorite quality areas are prototype, quality, training, and auditing. Beitel is a senior member of ASQ and has served extensively as a volunteer leader in ASQ. In addition, she has taught at the college level and shared her knowledge of quality principles with an entire county-wide consolidated school district while in Detroit, MI. Her words say it all, "Our field is relatively young and still searching for acceptance in many industries. We have so much to offer society and it all begins with understanding. I believe if we have the correct tools and dynamic ability to adapt their applications we can truly increase the quality of life in the world."

The ASQ Education Division welcomes Ardith Beitel as its new treasurer and looks forward to a long and rewarding association.

Join our 2nd Annual Advancing the STEM Agenda Conference at UW-Stout, July 16-17

by Cindy P. Veenstra, Ph.D. and Julie Furst-Bowe, Ed.D.

For the second year, the Education Division and the University of Wisconsin-Stout will co-sponsor the Advancing the STEM Agenda in Education, the Workplace and Society Conference. We are very excited about this conference. Our four focus areas include the following:

- Industry partnerships improve STEM education
- Higher education STEM-improved learning through teaching and communities
- College-ready in STEM and transition to college
- The STEM gap: representation and access in STEM

We would like to discuss the first focus area in more detail. Last year, in the *Workforce Development Brief*, Deborah Hopen wrote an editorial "Closing the Gap on STEM Education." In this editorial, she called for companies to become more engaged with STEM education. She wrote, "Contact your local high schools and higher education institutions. Seek out ways to integrate your organization's training ground with their classrooms. Hardwire the relationships and programs, building a pipeline of well-developed graduates for the future."

With a growing interest in advanced manufacturing, there is a strong need for partnerships among community colleges, universities, and manufacturing companies. In fact, with the number of manufacturing companies represented in the Division, we are hoping that many companies will join us in a lively panel discussion at the conference. Dean Paul Plotkowski, founding dean of the Padnos College of Engineering and Computing at Grand Valley State University, will lead a keynote panel discussion on STEM education-industry partnerships. He led an excellent workshop at last year's conference on K-12 STEM outreach programs. Padnos College of Engineering and Computing engages a variety of university and community partners in providing a wide array of industry projects, work experiences for students, and STEM-focused K-12 outreach programs. These programs build upon Dr. Plotkowski's 30-year involvement in community engagement activities.

Help us With Industry Support

We are also looking for companies that back the STEM agenda and would be interested in supporting the conference. Our support packages are varied, and we hope that industry participation will lead to more recognition of the significant focus of this conference in blending the quality paradigm with STEM initiatives. If you work in a company that has STEM outreach initiatives, we ask for your help in bringing this conference and the support packages to the attention of your managers. Many of us have backgrounds as engineers and appreciate the significance of this conference.

We will also have a strong focus on improving teaching in our STEM university classrooms. We have invited Professor Jeffrey E. Froyd of Texas A &M University to present an opening keynote on "STEM Education Classrooms: Promising Practices for Improved Learning." We are honored that he has accepted our invitation. Dr. Froyd is a TEES research professor and the director of faculty climate and development at Texas A&M. He co-created the integrated, first-year curriculum in science, engineering, and mathematics at Rose-Hulman Institute of Technology. He is collaborating on NSF-supported projects for improving the preparation of students for Calculus I and is a senior associate editor for the *Journal of Engineering Education*.

We are planning a keynote on the challenges and successes of preparing high school students for STEM majors, the third focus area. We are also expecting excellent conference papers on the challenges of engaging and retaining women and underrepresented minorities in the STEM fields and mentoring them in the transition from universities to the STEM workforce. The abstracts for the breakout sessions are coming in now and we can see already that we will have very significant breakout sessions.

We encourage you to participate and help us make this conference a success!

Cindy P. Veenstra and **Julie Furst-Bowe** are conference co-chairs. They can be reached at conference@asaqedu.org.

Higher Education Activities Are a Collaborative Effort

In the fall survey, some members were concerned that we did not have many activities related to higher education compared to K-12 education. In actuality, our publications and networking are significant! We thought this article would be the best way to explain the depth of our networking related to higher education topics. Due to the collaborative nature of our division activities with ASQ, we believe that all the available resources for networking may not be evident to members. We continue to work on improving the ease of networking both in the Education Division and in using resources throughout the ASQ website.

Higher education activities in ASQ are primarily defined by the Education Division, the ASQ publications group, and the ASQ marketing group.

- The Education Division publishes the peer-reviewed *Quality Approaches in Higher Education*. It is published in February and August and always has a high access rate.
- The ASQ publications group and the Education Division jointly publish the *ASQ Higher Education Brief*. Dr. Marianne Di Pierro, our *QED News* editor, is also the associate editor for this invited papers publication and recommends content. It is published six times per year. Amanda Hankel is the editor and is on the ASQ staff. The articles are all available in the Education Division library and the issues are available at http://asq.org/education/update_info.html.
- The Education Division supports discussion boards and networks and blogs. Our newest blog is on Lean Six Sigma in Education by Norma Simons.
- The Education Division co-sponsors the **Advancing the STEM Agenda Conference** (July) and supports the **National Quality Education Conference** (*Nov.*) sponsored by ASQ. Both have call for papers/presentations that invite higher education faculty to present their research or work.
- The **education marketing webpages** have recently been updated with more information and include links to the Division's STEM Agenda Conference, the *Quality Approaches in Higher Education* page, and its resources page. This revision was a collaborative effort with the Division.
- Start at this page to see the improvements http://asq.org/education/. Then click on the "Higher Education " button and go to the ASQ Marketing Higher Education **page**—here you will find useful information on the ASQ Store, ASQ certifications, and ASQ conferences that higher education faculty may be interested in, including the Education Division's STEM Conference. The marketing group also publishes the *ASQ Higher Education Solutions* with information on certifications, books, and other resources. If you have any compliments, comments, or recommendations about the marketing pages, please contact Carey Bartlet at ASQ headquarters. She will be happy to hear from you.
- In addition, our *QED News* accepts articles from college faculty members and discusses higher education happenings.
- The Division has plans for **webinars on higher education topics** in the near future.
- The Division has an effort to **recruit college graduate students** into the Division so that we may network with them.

We are *networking in many ways* with college and university faculty, staff, and administrators and encourage you to join us. All these resources complement the Division's networking efforts. Our belief is that members like to network in different ways, so collaboration between the Division volunteer leaders and ASQ staff leads to more networking resources for our members. Contact Cindy P. Veenstra or Julie Furst-Bowe at chair@asqedu.org or furst-bowej@uwstout.edu if you have any questions.

Navigating From the Education Division Website

A navigation key to many of these resources is to start at the Education Division website.

The publications all have links on the right-hand side of the website. Check these often for the latest issue. Likewise, open the boxes on the left-hand side to see the library, discussion boards, blogs, and leadership page. The library now has a nice summary of major categories of publications at the top of its page. Finally we Tweet on the latest Division happenings. There is a Twitter link on the left-hand side of the page that will open up and list all the Twitter announcements (no sign in required!).

Interested in Higher Education Assessment and Accountability?

Assessment and Accountability is an important topic in Higher Education. Did you see the *ASQ Higher Education Brief* in December on this topic? This issue included articles by leaders in our field: Julie Furst-Bowe, John Dew, Nicole Radziwill, Henry Lindborg, and Stephen D. Spangehl.

Check out our Library

Includes Link to the Education Briefs

http://asq.org/edu/quality-information/library

The Impact of Engineering in a Societal and Global Context

by Kenneth Reid, Ph.D.

Most faculty in engineering programs are well aware of the criteria specified by ABET, the accrediting body for engineering programs. Among the general requirements of all accredited engineering programs, ABET[1] lists 11 areas for which programs must have documented student outcomes including:

> (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
>
> (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
>
> (j) a knowledge of contemporary issues

Many of today's faculty members were educated in very traditional settings: the first year was filled with chemistry, calculus, physics, etc. If the student survived, they began designing in their second or third year. Today, programs are investigating ways to integrate topics like the engineering design process, societal aspects of engineering, and a global appreciation of engineering earlier in the curriculum.

Engineers can, should, and do make a difference in the lives of individuals, groups, and populations. Failing to incorporate the global and societal contexts of engineering early in the plan of study helps propagate the perception that engineers are not focused on things that will help society. To help address these concerns, the T.J. Smull College of Engineering at Ohio Northern University (ONU) integrated a requirement to design a device to help alleviate some effect of poverty into the first year Introduction to Engineering course. Other programs such as EPICS (Engineering Projects in Community Service)[2] offer students the opportunity to apply engineering principles to community service projects, helping to establish the tie between engineering and society. EPICS University programs pair student design teams with community service or educational organizations; hundreds of projects involving thousands of students have been completed successfully. Programs such as Engineers Without Borders[3] offer students the opportunity to pursue international service projects in an extracurricular framework.

Ohio Northern students Sarah Thompson and Mike Sunyak demonstrate a Treadle Pump designed for use in Swaziland.

The idea for the poverty alleviation requirement was inspired by Dr. Paul Polak, author of *Out of Poverty.*[4] Through his work in Third World countries, Polak has demonstrated successfully that products designed to applicable constraints and combined with local empowerment can have an impact in markedly improving the lives of the less fortunate. With this ideal in mind, the culminating cornerstone engineering design course in the first-year curriculum at ONU was modified, requiring all designs to address some area of poverty alleviation.

Students are formed into teams and given a request for proposals. They are assigned a country or population and required to explore this culture to identify unique characteristics that may constrain or offer criteria to assess their proposed design specific to their population. Teams submit a proposal and then go through the complete engineering design process to design and prototype their device. Along the way, teams produce status reports and regularly participate in preliminary and critical design reviews. Teams also prepare and present a research poster for a campus-wide entrepreneurial competition. Presentations and prototype demonstrations wrap up the semester.

ONU faculty members have assessed the effect of the activity on the students' appreciation of the societal and global nature of engineering[5, 6] with very positive results. Students strongly indicated that this activity specifically related this design experience to the outcomes as specified by ABET and led to a better appreciation of designing to realistic constraints. Qualitative assessment showed similar positive results. Some excerpts include:

> "It is one thing to sit in a class and learn about the design process, but it was a very rewarding experience to go out and be able to implement the things we learned in class. It was also a great learning experience to work with one group for a very big project throughout the entire quarter."
>
> "The most beneficial aspect was the knowledge of what goes into doing a design project. I was under the impression it was easier, and there were not as many constraints, and that it was mostly design and inventing. It is quite evident now that it is a lot of extra work aside from those tasks."

continued on page 8

The Impact of Engineering continued from page 7

> "In less than ten weeks' time, our group met, designed, assembled, and is in the process of testing a functioning prototype. Using the engineering design process, our group successfully engineered a solution to a problem half a world away. Even though our design may never actually be used in Niger, our group has discovered it is a very plausible, less time-consuming method of cooking."

The incorporation of the poverty-alleviating device design as a first-year cornerstone design project afforded students the opportunity to experience the engineering design process early in their academic careers. It also provided a way to see their design in the context of a real-world design that could help society; in other words, the understanding of the potential impact of engineering from the societal and global view.

References

[1]"Criteria for Accrediting Engineering Programs, 2012 – 2013": http://www.abet.org/engineering-criteria-2012-2013/

[2]EPICS University: https://engineering.purdue.edu/EPICSU

[3]Engineers Without Borders: http://www.ewb-usa.org/.

[4]Paul Polak, *Out of Poverty: What Works When Traditional Approaches Fail*, Berrett-Koehler Publishers, San Francisco, 2008.

[5]Kenneth J. Reid and John K. Estell, "Incorporation of Poverty Alleviation in Third World Countries in a First-Year Engineering Capstone Course," *International Journal of Engineering Education* Vol. 26, No. 6, 2011, pp. 1273-1280.

[6]Kenneth J. Reid and John Estell, "Incorporation of Poverty Alleviation in Third-World Countries in a First-Year Engineering Capstone Course," Capstone Design Conference, June 2010.

About the author

Kenneth Reid, Ph.D. is the director of first-year engineering, program director of engineering education, and an associate professor in electrical and computer engineering and computer science at Ohio Northern University. He was the seventh person in the United States to receive a Ph.D. in engineering education from Purdue University in 2009. He is active in engineering within K-12, serving on the Technology Student Association (TSA) board of directors and 10 years on the IEEE-USA Precollege Education Committee. He co-developed "The Tsunami Model Eliciting Activity," which was awarded Best Middle School Curriculum by the Engineering Education Service Center in 2009. His research interests include success in first-year engineering and engineering in K-12. His e-mail address is k-reid@onu.edu.

Podcasts and Webinars Now Available

We have the following recently taped podcasts or webinars from our members. We are encouraging members to send us short, taped webinars on significant practices that improve student learning in schools, colleges, and industry. They are available in our online library.

November 2011

Agora School District in the Netherlands by Principal Joyce de Vries. This video includes examples of preparing students for the 21st century learning through the use of continuous improvement thinking. This video was included in the 2011 NQEC presentation by Rien Spies, superintendent of Agora School District.

March 2012

Baldrige in Education by Dr. Jay Marino, Dunlap Community Unit School District 323 (IL). Based on 2011 NQEC workshop.

Using Student Satisfaction Data to Start Conversations About Continuous Improvement by professor Chenicheri Sid Nair, University of Western Australia, based on his article in the *Quality Approaches in Higher Education*.

April 2012

Global Student Learning in Engineering at Ohio Northern University by professor Kenneth Reid, Ohio Northern University.

More are in process for the rest of the year. In May, we plan to release a taped podcast on the use of evaluation in higher education; in June and July, we will release two podcasts on workforce development topics. Watch the homepage for information and our twitter feed @ASQ_EduDiv.

Quality Approaches in Higher Education

The Education Division's peer-reviewed journal

We welcome articles from all academic disciplines on quality in education topics, including: Baldrige, Kaizen, Lean, accreditation, and improving student success.

http://asq.org/edu/quality-information/journals/

ASQ World Conference
May 20-23 in Anaheim

ASQ's World Conference on Quality and Improvement is scheduled for May 21-23 at the Anaheim Convention Center in Anaheim, (Disneyland) CA. The conference offers an exceptional opportunity for educators, legislators, business executives, and anyone else interested in learning more about quality-focused topics to meet and exchange ideas about implementing quality initiatives in education and other sectors. This year's theme is "Producing Results: Proven Solutions in Today's Challenging World." The following is from this year's program:

"Quality" is a term that encompasses many disciplines, approaches, and tools. Whether referred to as quality control, assurance, or management, one fact remains: Quality works. It works by giving us answers to questions, guidance in decision making, and solutions to the challenges we face. It provides a framework for us to work from and helps clarify where we are, where we want to be, and what we need to do to get there. The application of quality has broadened over the years and is now well beyond the manufacturing lines of the early 20th century. The same principles, tools, and techniques that produce results for us at work also give us answers to the challenges we face in the lives we live, the communities we live in, and the planet we live on.

On Sunday, May 20 at 2 p.m., the Education Division will hold its annual business meeting. Again, this year we will have an exhibit in the convention hall with another great slide show. We will also have our new book, *Advancing the STEM Agenda*, on display!

Again this year, Dr. Jamison Kovach, University of Houston, will lead an Education Division sponsored session, the workshop, "Quality Initiatives: Drivers of Success and Failure." In addition, Christine Robinson, will lead her session with the "Kano Survey: Translating Theory into Practice." The Education Division is working with Robinson on her Kano survey project and will participate in one of her surveys.

Join us for this interesting and informative conference experience. For more information and to register, please go to: http://wcqi.asq.org/

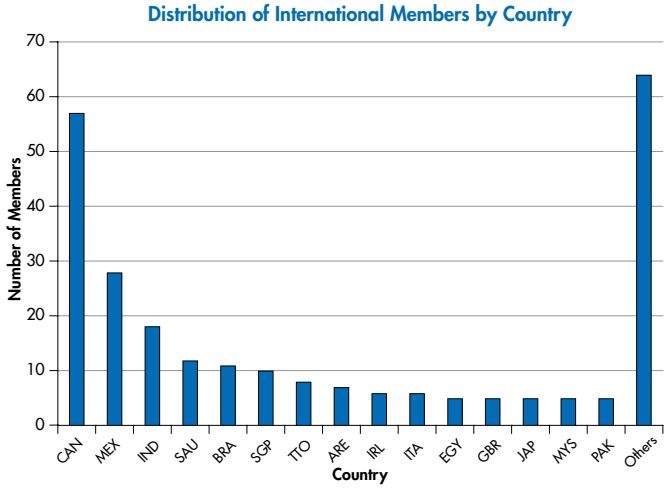
Networking Invitation to International Members

by Cindy P. Veenstra, Division Chair

The Education Division leadership team extends a warm welcome to our international members and invites you to discuss how you can actively network in the Division. Fifteen percent of our Education Division membership consists of international members with representation from 51 countries, thus showing the commitment of members to the Division's goal of improving education throughout the world. The six countries with the most Education Division members are: Canada, Mexico, India, Saudi Arabia, Brazil, and Singapore. Eighteen of the 51 countries have only one division member.

We are very proud of the networking we have accomplished in the past several years. Some international members have written to us or indicated in surveys that we should have a conference in their country. We are a small division and at this point, scheduling an international conference is not a possibility. We want you to know, however, we are listening to your ideas and suggestions and are exploring opportunities. A few of you have asked us if you can be your country's representative. We are waiting to hear from ASQ leadership on global initiatives regarding the guidelines and policies for division representatives.

Distance does not need to be a problem in this Internet age. We invite you to participate and network with us by contributing an article to our library or newsletter. (After a review by our leadership, it will be placed in the library; all articles must be written in English.) The more articles from different countries, the more diversity and chance there is for innovative thinking and more significant networking on improving education. We currently have a call for papers for the peer-reviewed *Quality Approaches in Higher Education*, the Division's own publication on improving quality in our world's universities.



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Networking Invitation continued from page 9

We also encourage international members to participate in our division's networking by sending us a taped podcast or webinar. As an example, we have we have had a podcast from the Agora School System from the Netherlands on our homepage—it has been a hit! We encourage five to 10 minute podcasts that show how you are improving student success globally or developing a systems approach to education. If you have any questions, feel free to contact our chair-elect, Fernando Padró. Articles and podcasts can be submitted at this link: http://asq.org/edu/interaction/submit-content-edu.html.

We also invite you to participate in ASQ communities and, in particular, the Division-supported discussion boards and networks. We will have a booth at the ASQ World Conference for Quality and Improvement, so if you plan to attend, drop by and talk with our division leaders.

If you tweet, we particularly invite you to support us by following us on Twitter @ASQ_EduDiv. It will help us expand our social media network.

About the author

Cindy P. Veenstra, Ph.D. is the chair of the Education Division, an ASQ Fellow, and CRE. Feel free to contact her at chair@asqedu.org.

Welcome Norma Simons as our Newest Blogger

Blog: Lean Six Sigma in Education

Norma Simons is an ASQ Fellow and is new to the Education Division. We welcome her blog on using Lean Six Sigma in K-12 schools, colleges, and universities. In her blog, she asks "Is Education ready for Six Sigma?" She calls for "a holistic approach that considers the academic and support systems of education that work together to provide the required outcomes."

Simons is the president of Performance Innovation LLC, formerly Simons-White & Associates, a company focused on understanding the needs of the customer and providing customized solutions that achieve measurable results. She heads a team of qualified professionals in the areas of Lean and Six Sigma. Her success is attributed to her unique integration of performance improvement systems such as Lean, Six Sigma, Design for Six Sigma, quality management systems, business operating systems, and balanced scorecards that have enabled the effective execution of organizational strategy and, ultimately, bottom-line results. During the last five years, she has studied aspects of the educational system and offered customized programs in Lean Six Sigma to higher education and public school systems.

In addition to being an ASQ Fellow, Norma is a certified quality engineer, reliability engineer, and Six Sigma Black Belt. She holds a master's of science degree in industrial engineering/operations research from Wayne State University.

Her blog will be available on the Division's blog webpage; visit it often!

Engaging the Community College System

by James Teeple

In today's highly competitive job market, credentialing has become of growing importance for individuals gaining or regaining sustained employment. Increasingly, employers are either requiring or highly recommending that potential candidates have relevant certification/s for the positions they seek to fill, and the ASQ certifications are not an exception. Since many of the readers are likely to already understand the impending value of certifications, I'd like to share some meaningful roles that higher education can play in certifying the workforce.

Certifications to Complement a College Degree

Ivy Tech Community College's Certification and Assessment Centers award tens-of-thousands of certifications to traditional and non-traditional students alike each year. Many relevant professional, as well as industry-recognized certifications, are embedded in the coursework of the college's degree programs. In this way, students not only earn degrees during their educational journey, but they also often graduate holding certifications that build an impressive resume and better prepare them for a professional career. For example, certain ASQ certifications, as well as the MSSC Certified Production Technician certification, can be transmuted to college credit for Ivy Tech's Advanced Manufacturing degree program. Although this is just one example, there is an extensive list of professional certifications approved via the college's degree program review process. The data collection is an integral part of the review process for continually improving programs, as well as for purposes of identifying and aligning applicable certifications with a program's curriculum. Increasing the number of certification awards is part of the strategic initiative of the college.

Certifications to Credential Informal Education and Engage Adult Learners

The corporate college division of Ivy Tech works directly with business and industry in skills development training for both the incumbent and dislocated workforce. Many of these programs are designed to concentrate on core topic content combined with applied learning that provides students with new and/or enhanced skill sets. These programs for the most part are developed to provide an opportunity for professional certification as an intended outcome.

In this way, participants who successfully complete a program obtain the intended certification. With the outcome objective in mind, participants will consciously make the correlation of their learning to their experiences, a vital linking of formal and informal education that facilitates participant engagement. This engagement, in turn, can build self-confidence and desire in a participant to take the next step on the proverbial career ladder, which is often enrollment in a degree program.

The majority of participants in Ivy Tech's Corporate College are adult learners, many of whom have not previously experienced higher education. Many do, however, possess a wealth of experience and an abundance of knowledge in their respective lines of work. This population becomes ideally served as engaged learners looking to upgrade and credential the skill sets that were obtained mostly in an informal learning environment. We have probably all known people in the adult demographic that think they've either missed their opportunity to attend college, or simply don't believe that they're suited for college coursework. On multiple occasions I have personally witnessed many adult learners who have enrolled in a training program become engaged in the learning process, successfully obtain a certification, and then decide to earn additional certifications or begin working toward a degree.

Higher Education Engagement in Quality Initiatives

While serving as the ASQ Section Education Chair, I was also the director of operations for Ivy Tech's Corporate College in northeast Indiana. This unique combination of roles afforded me the opportunity to directly engage a number of entities such as business and industry leadership, economic and workforce development organizations, community organizations, K-12 educational systems, and professional associations in certifying the workforce. Although there are many ways to facilitate and enhance partnership engagement, the following is a short list of proven approaches used by Ivy Tech to increase the number of ASQ certifications in the state of Indiana:

- Numerous open enrollment and online course offerings for training in the ASQ body of knowledge (e.g. Lean Six Sigma, auditing, management, statistics, problem resolution, DOE, etc.).
- Partnership agreements with local ASQ sections to facilitate "refresher" (exam preparation) courses for intended examinees. Also, many of the Ivy Tech campuses are authorized ASQ certification testing sites.
- Improvement methodology training for staff, faculty, and adjunct faculty to provide professional development, as well ASQ member benefits through an organizational membership.
- Outreach and after-hour or summer boot camps for high school students for purposes of obtaining technical certifications (e.g. welding for AWS, CNC operator for NIMS, and quality improvement associate for ASQ CQIA).
- Custom quality courses for ASQ certification, as approved by the Department of Workforce Development for training dislocated workers toward careers in quality or to supplement other career paths.
- The college gives consideration to ASQ certifications for potential cross-walk for credit applied to some degree programs.
- The college often sponsors and co-hosts ASQ Section workshops and conferences as a means to offer recertification units to membership.
- The college provides available meeting space for local ASQ board and membership meetings.

In many ways the foregoing list reflects how Ivy Tech's efforts to partner with local ASQ sections have, in turn, facilitated the college's engagement toward quality initiatives. So, if you're currently in a leadership role of your ASQ Section or are simply a member, I strongly encourage you to reach out to those neighboring educational institutions, especially community colleges. Likewise, educators should explore or seek ways to expand opportunities in partnering with ASQ. I believe in doing so you'll discover, or rediscover, that the educational element can be every bit as important to the certification process as the certification process can be to the engagement of higher education.

About the Author

James Teeple is currently with Ivy Tech Community College of Indiana as a project director on a DOL grant to train and credential dislocated automotive workers in technology for other emerging industries. A Senior member of ASQ, Teeple is also an active board member of the Northeastern Indiana Section 0905 and can be reached via e-mail at jteeple@ivytech.edu.

Editor's note: *ASQ and the Manufacturing Institute have partnered recently to advance workforce development opportunities to bridge the gap created by a retiring baby boomer population. Currently, ASQ offers 17 certifications, all of which will be promoted within the Skills Certification System, developed to address deficits in manufacturing education. According to the Manufacturing Institute, 82 percent of manufacturers report moderate to severe shortages of qualified workers, with the shortage trend continuing in the next three to five years. Additional information on this topic is available at the following URL:* http://www.asq.org/media-room/press-releases/2012/20120217-manufacturing-institute-partner.html

Reflections on the 19th Annual NQEC

by Greg Mazzotta

I must admit that it's been a few years since I attended the NQEC Conference. With the downturn in the economy, I approached cautiously—but cautiously optimistic.

Maurice Ghysels, moderator, and Jan Polderman and Jay Marinio, speakers.

It has been 11 years since Congress invited education (and healthcare) to participate in the Malcolm Baldrige National Quality Award Program, which is supported, in part, by the National Alliance of Business's initiative; Baldrige in Education; Raising Student Achievement; and Aligning Rhetoric, Resolve, and Results.

In 1999, I was active in mid-Atlantic region quality initiatives and with a state education leadership team that was not one of the six pilot states: Maryland, Ohio, Illinois, Indiana, Texas, and New Mexico. For the first year, I played cross-border peek-a-boo.

Watching this transformational landscape develop provided me with insights into the human spirit of biases, from scarcity to abundance. "Who's leading now?" "Who's falling behind?" Projections continued. Some say that this was the original Race to the Top 1.0, with the aim of developing role model schools, best practices, and a body of knowledge designed to lift ALL schools. I recall that idealistic, *can-do* spirit of the 1960s and President Kennedy's charge. Remember, "A rising tide lifts all boats." In those 11 years, there have been multiple Baldrige Award recipients at the national level and many, many more at the state level. Much appreciation is given to that special group of quality education pioneers for their vision, determination, patience, and understanding in bringing this effort to last year's NQEC.

Framing this from a historical perspective is important to appreciate the organic growth and strategic linkages that have taken place, as well as the exciting opportunity to meet and greet participants from 32 states and four countries.

In my role as display booth attendant, as well as ASQ ambassador, I was encouraged by the level of engagement; sincere inquiries were addressed, knowledge dispensed, and introductions made. Hundreds were served.

Presenters including Montgomery County School's Michael Perich, Jay Marino, and Jan Polderman provided both compelling and entertaining case studies of their work. Process management, improvement strategies, significant change in student achievement, and operations and results were reported and celebrated.

Perich shared that Montgomery County School has more than 22,000 employees and 145,000 students who represent 164 countries speaking 184 different languages. This district has 200 schools plus 30 additional facilities covering 500 square miles. It serves 13 million meals each year. I could go on, but I think you can see that it is an extremely large and diverse organization. Any organization willing to work hard can achieve what Montgomery County School has done.

Marino and Polderman focused on comparisons between the Dutch and U.S. educational systems, as well as defined 21st century educational leadership as it manifests within international venues. In addition, they recommended ways to create a culture of continuous process improvement in a global setting with the PDSA approach that surpasses geographic or cultural barriers.

Embracing a philosophy of quality sets educational organizations on a path of continuous improvement. Quality in education is important because it encompasses many best practices of organizational change. Key concepts embraced by quality school systems include: setting and communicating direction throughout the system; aligning goals at all levels; gaining stakeholder participation in improvement efforts through teamwork, collaborating, and sharing leadership; using data to guide decision making; and measuring customer satisfaction. Quality in education is designed to empower students, staff, and stakeholders to drive improvements that bring about organizational results—the mission of most school systems.

Table discussions focused on how educators around the country were improving student achievement and creating 21st century educational learning environments. By networking with other educators on a continuous improvement journey, participants should have the contacts, resources, and examples to take their improvement efforts to the next level.

At the Education Division's display booth, bags were filled and we left nearly empty. We were optimistic that continuous quality was indeed spreading to new levels, and we look forward to the next conference.

This year's event will focus on using quality theory and tools in instruction to improve student achievement as well as continuing to focus on broader systems applications. Improvement at the school and district level is essential, of course, but high-quality instruction must occur in classrooms for real changes in achievement to take place. How can quality principles and practices help teachers and instructors at all levels of education increase their instructional effectiveness?

The purpose of NQEC is to provide teachers, administrators, support personnel, and other stakeholders' opportunities to examine continuous improvement principles that have been successfully used in education. This conference is designed to establish and cultivate a marketplace of ideas in which proven methods of implementation and sustainability can be explored. In addition, previous attendees at the NQEC have found support, tools, and strategies to improve the processes they engage in and the results they achieve.

So, let's continue to talk with each other, sharing stories and experiences and let us know how we might help in addressing your inquiries, providing research, and sharing success. Please introduce yourself at the display table and drop off your business cards.

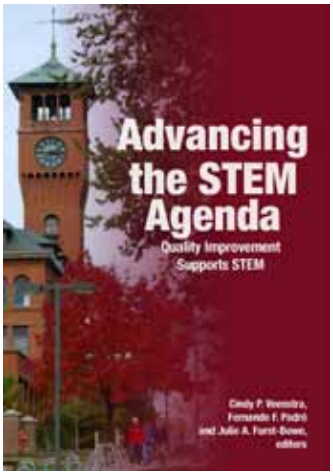
Greg Mazzotta at the 19th NQEC

- Montgomery County School's Malcolm Baldrige Profile can be viewed at http://www.baldrige.nist.gov/PDF_files/2010_MCPS_Profile.pdf
- A transcription of an interview with the NQEC keynote presenters can be accessed at the following URL: http://asq.org/edu/2011/07/continuous-improvement/keynote-speakers-gear-up-for-nqec-2011.pdf

About the Author

Greg Mazzotta is an independent management consultant and performance excellence and innovation coach. His interest in education leadership and transformation began in 1999 with the National Alliance of Business' initiative: raising student achievement, aligning rhetoric, resolve, and results that helped launch Congress's invitation of the education sector to the Malcolm Baldrige National Quality Award Program. He serves as a Baldrige examiner for the state quality award programs in both Delaware and Pennsylvania and serves as a resource for legislators, school board members, foundations, and education leaders in their school improvement planning and programs. His background, skills, and collaborative style are best demonstrated in making the case for economic and workforce development, providing insight into change management, and preparing a 21st century workforce. Contact him at GFMazzotta@gmail.com.

Division Publishes Book From STEM Agenda Conference



After the 2011 *Advancing the STEM Agenda in Education, the Workplace and Society Conference*, the conference co-chairs, Cindy P. Veenstra, Fernando Padró, and Julie Furst-Bowe, proposed a volume of selected conference papers to publish in a book. We approached ASQ Quality Press and they approved our proposal, conditioned on funding a portion of the pre-production costs. The Division was granted a DAC grant, which covered part of the book funding. As the book developed, it was clear that this was a large book project, with 17 chapters and 38 authors. The original conference papers were developed into high quality chapters telling success stories covering:

- Individual professors in inspiring their students to consider STEM majors.
- Approaches that professors are taking to help remedial math students succeed academically.
- Collaborative models for student success.
- Professional development programs for math and science.
- The importance of K-12 outreach projects and STEM internships.

The book will be titled *Advancing the STEM Agenda: Quality Improvement Supports STEM* and will be available in mid-May from ASQ Quality Press. We hope to have copies available at the World Conference. It will also be available as an e-book. We are planning on a book signing celebration at the second annual Advancing the STEM Agenda in Education, the Workplace and Society Conference this summer.

For more information, go to:
http://asq.org/quality-press/display-item/index.html?item=H1429&xvl=76106897

Check out Becky Martin's and Norma Simons' Blogs

http://asq.org/edu/interaction/blogs-edu.html

Chair's Quotes

"Without a workforce-competency-development system, an organization is at risk of not meeting its business objectives or satisfying its customers."
– Belinda Chavez, *Workforce Development Brief*, Feb. 2012.

"We need to continually look at the continuum of learning to improve the quality of what our students are doing."
– Becky Martin, *ASQ Primary and Secondary Education Brief*, Jan. 2012.

"We must look forward to that uncertain future with eager anticipation, not fear and trepidation."
– Deborah Hopen, *Journal for Quality and Participation*, Oct. 2011.

"Institutions are collecting more data than ever. Yet, using these data to make informed decisions relative to teaching and learning methods, course content, course sequencing, or instructional delivery strategies appears to remain a challenge for many colleges and universities."
– Julie Furst-Bowe, *ASQ Higher Education Brief*, Dec. 2011

"Incorporating active, cooperative quality learning exercises in a course requires instructors to modify their teaching strategy in a number of important ways but the most critical is their roles as educator, mentor, and facilitator."
– James A. Griesemer, *Quality Approaches in Higher Education*, Nov. 2011.

"Systematic change will require a new paradigm—one that focuses on developing effective, engaged teachers who have deep content knowledge in engineering as well as the pedagogical tools to teach within the K-12 environment."
– Kenneth Reid, *QED News*, Fall 2011

Encourage Your Grad Students to Join the ASQ Education Division!

Calling All Grad Students

Here are some benefits of student membership:

- ❑ Network with educators, professionals, and other students throughout the world who want to apply quality improvement and best practices to education at all levels. Visit our website at asq.org/edu/.
- ❑ Network for future career opportunities in education.
- ❑ Online library of articles and podcasts including articles from the *ASQ Primary and Secondary Education Brief* and *Higher Education Brief*; as well as peer-reviewed *Quality Approaches in Higher Education*.
- ❑ The Division newsletters, blogs, social media, and discussion boards.
- ❑ Special rate on registration for the Division's STEM Education Conference at UW-Stout in July.
- ❑ Student members can also access ASQ's many other resources for their professional development including ASQ's Knowledge Center, online communities, local area sections, events, member rates on publications, training, and certification programs.
- ❑ The Division supports ASQ's social responsibility movement and social justice.

If you wish to improve education, this is the organization to join!

Cost of a Student Membership

An ASQ membership with a membership in the Education Division costs only $37. You must be a full-time student at an accredited university or college. Be sure to sign up for the Education Division.

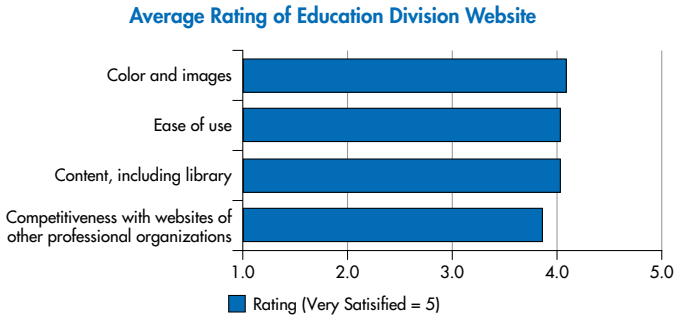
Go to http://asq.org/membership/individuals/student.html to read more about student membership benefits or call ASQ at 800-248-1946.

Fall 2011 Voice-of-the-Customer Results

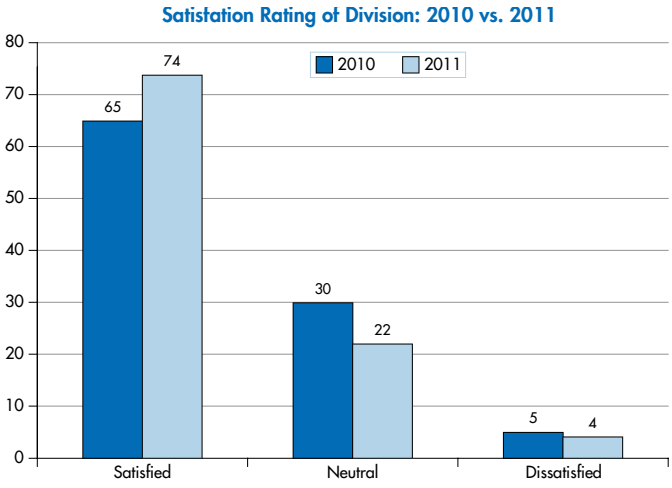
Thanks to Rob Robinson for his ideas for the survey, to Christine Robinson for processing the voice-of-the-customer survey software and subsequent analysis, and to Candace Sake (ASQ) for distribution of the e-mail blasts.

One hundred and one members responded to the member survey (9.6 percent of members who are opted-in to receive Division e-mails). Twenty eight percent of the respondents were members for one year or less, 37 percent for one to five years, and 35 percent for more than five years. The following graphs highlight the more significant results. The leadership team will continue to use the survey results to guide activities for increased membership satisfaction.

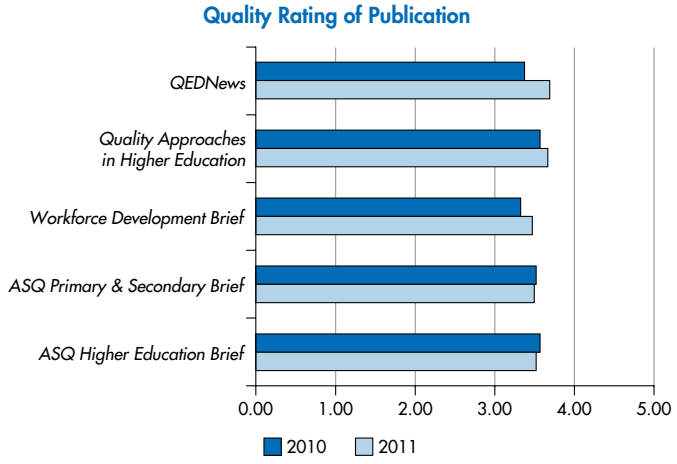
Members Gave the Education Division Website High Satisfaction Ratings (5= very satisfied)



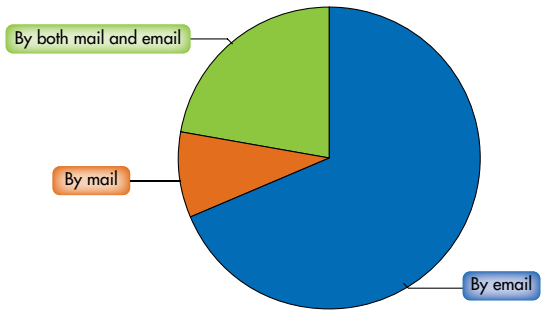
Overall Satisfaction Percentages by Respondents, Satisfaction Increased in 2011



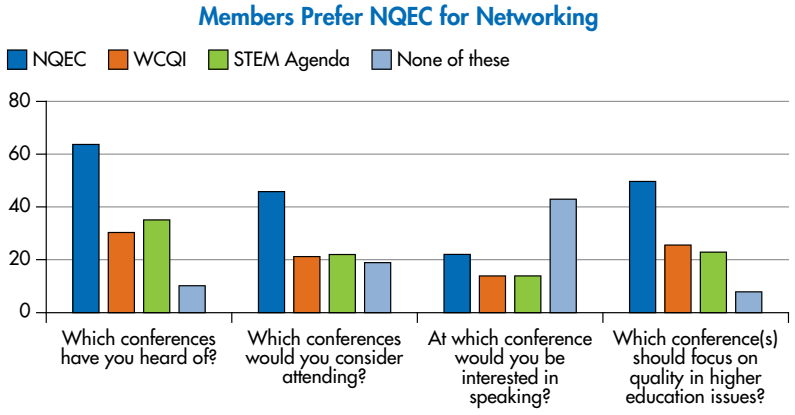
Average Ratings of Publications (5= Excellent) Improved in 2011



Two-thirds of Members Prefer E-Mail Distribution of the Division Newsletters



Members Prefer NQEC for Networking



Plato and Aristotle and the Measure of Success

by Ardith Beitel and Gaia Hawkin

Public speaking generally employs a traditional class process that is Platonic by nature. Those students closer to perfection receive the top grade based on the ability to mimic the required skill set. Sometimes they get to listen to a speech written by a professional speechwriter and delivered by an intrinsically and naturally gifted speaker/performer. Often, the instructor just tells them to go to the Internet if they are unsure about the desired outcome. Most students expect the traditional method: present a speech that meets the required criteria, receive teacher critique for every twitch or slip of the tongue, earn a passing grade for each speech to pass the course, and then avoid public speaking the rest of their lives. They recognize that the goal is sloped against achieving real success. Few of us are able to even conceive of this level of production or delivery and settle for mediocre attempts thus salving our failure.

ESL students bring more than a fear of public speaking to the classroom. They bring cultural stigmas, body language, and various levels of mastery of the English language in the ability to read or write English, and to a major degree, their verbal intelligibility. Any of these weaknesses present a potential to hinder a student's opportunity to meet the success criteria of American schools. The Platonic Model provides many ESL students with no or little chance to increase their confidence in their ability to communicate and forces them to continue to avoid public interaction.

What if an Aristotelian model was employed? The goal here is not distance from perfection but rather recognition of steady improvement, which builds confidence in public speaking and the ability to clearly formulate and present a topic. Positive feedback in the controlled environment of a classroom becomes the driving force for success and the curriculum serves as the vehicle. Could this teaching method be robust enough to justify issuing grades in a traditionally driven academic setting?

This question remains for speech and communication educators—how to measure achievement of a personal mastery skill critical to the success of every adult? Business asks the same question of its customers. Has the business given you something you have found useful and do you feel good about yourself for having our product? If the confidence a student has in his/her performance after receiving instruction is comparable to the level of satisfaction a customer has with a product or service, then some of the same tools used in business could be applied to this classroom setting.

How would the Aristotelian method operate in a communication classroom dominated by ESL students? Here's an example taken from real life. Each student would take a personal inventory of their communication abilities in the form of a self-survey during the first and last nights of class. A single topic is selected by the student and vetted by the instructor for all speeches to develop a mastery of a topic of interest to class audience. Performance feedback comes in many forms— instructor review, peer review, and self-review. Overall course performance includes attendance to support interaction of the rotating work groups each day.

Instructor evaluation includes three questions after each speech:

- How do you think you did?
- What did you like the most about your speech?
- What would you do differently?

Each speaker receives only verbal compliments and praise from the audience to improve his/her confidence level. Anonymous peer feedback comes in a single sheet of paper with speech delivery criteria that includes a simple Likert scale and a space for writing improvement thoughts for the speaker. The odd numbered scales of 1-5 are defined between "Not Often" and "Most of the Time" to balance the responses away from the extremes of "Never" and "Always." This mitigates some of the language comprehension differences in the ESL and non-ESL students.

The Likert scale is the process and progress measure for students. Each student calculates the peers' critique sheets and posts them on their process self-critique. The self-critique is performed a day after viewing a video of his/her presentation. The instructor also uses the same scale for their critique sheet. The two self-surveys and critiques allow the instructor and student to have data points to assess improvement over the course of the semester.

The unique thing about this technique is that the true grade of the student's performance is not a goal to meet but rather evidence that his/her confidence and skill set has improved. The change in the student's viewpoint is captured in the surveys and speech feedback surveys. This will build the student's confidence, not only in giving for speeches but also for interviews and business presentations. Supporting the students on their journey are the compliments and critique comments from their peers. The instructor can capture the data and review for trends and grade assignment. The Likert scales also provide a scientific methodology that is acceptable to the administration.

The success of the Aristotelian method was evident with the first semester data collected. The 2011 fall semester was the first time that the Likert scales and self-surveys were implemented. Initial

Public Speaking (a 200 level course) data showed a 34 percent average increase in the self-confidence and an average final grade of 3.88 GPA. The Introduction to Speech/Communications (a 100 level course) had a 70 percent increase in student confidence and an average final grade 3.78 GPA.

A final thought—public speaking is a skill required to meet a community's need for productive growth and development of children. Communication curriculum continues to prepare students to contribute to their career paths and society. While this data is preliminary and the methodology is evolving, there is hope that the Plato-inspired side of education, which requires foundational data will accept the Aristotelian-methodology side that is now able to collect and analyze self-confidence and performance trending for determining grades.

About the Authors

Ardith Beitel is the ASQ Education Division treasurer. She has been a practicing quality professional since 1989 providing on-the-job quality skill training throughout her career in a manufacturing and in an academic environment for five years in Michigan. She is currently employed as a lead QMS internal auditor in the Boeing Test & Evaluation business unit in Seattle, WA, and holds a BS in business administration from Central Michigan University. Beitel can be reached at shaku.yubi@gmail.com.

Gaia Hawkin is an educator whose 31 years teaching in K-12 public schools has been paramount to this article. Hawkin holds a BA from Emerson College. She earned her MA from the University of Michigan and enjoyed two years as a teaching fellow (named Teaching Fellow of the Year 1969). She currently teaches speech at Bellevue College in Bellevue, WA. Hawkin can be reached at ghawkin@bellevuecollege.edu.

Keep Baldrige Mission Alive

by Charles W. Sorensen, Ph.D., and Julie Furst-Bowe, Ed.D.

Permission has been granted to the Education Division by the University of Wisconsin-Stout to reprint this article. It has appeared in several newspapers and other publications.

The U.S. Commerce Department on Nov. 22 announced the latest round of winners of the Malcolm Baldrige National Quality Awards, a prestigious citation known around the world as a sign of an organization's ongoing commitment to performance excellence. These awards typically are accompanied by well-deserved acclimation and publicity, and that was the case with these award announcements.

But what was surprising and disappointing was the lack of public attention given to another Baldrige-related development four days earlier: a decision by Congress and President Barack Obama to eliminate all federal funding for the Baldrige Performance Excellence Program, which sponsors the awards and related activities. The program cost federal taxpayers just under $10 million a year.

We believe that the Baldrige program will survive in some form. There is a foundation, as well as key partners, that are committed to ensuring the survival of the program. We at the University of Wisconsin-Stout, which won the Baldrige award in 2001, will do everything we can to help keep the Baldrige mission alive.

That's because we have seen what devotion to the philosophy of the Baldrige program, which was signed into law in 1987, can mean for an organization; UW-Stout is a much different university today than it was before we started on our "Baldrige journey."

Meeting the rigorous Criteria for Performance Excellence that accompanies the program made us seriously consider how we plan for the future, measure our performance in a number of areas and carry out our goals. The most important change brought about by our Baldrige experience, which now is part of our culture, was the establishment of an inclusive planning process to ensure that, in Baldrige speak, "all arrows are pointing in the same direction," and not at cross-purposes.

There is no question that our adherence to the Baldrige performance criteria has made us a much more efficient university and helped us weather repeated cuts in state aid without affecting educational quality. The Baldrige model, as deployed at UW-Stout, also led to a number of important innovations, including our e-Scholar or student laptop program, seeking designation as Wisconsin's Polytechnic University and establishing our Discovery Center for applied research and economic development outreach.

We are not alone. Since its inception, the Baldrige criteria have helped thousands of organizations become more efficient, productive and innovative. The list of winners of the award include Fortune 500 companies such as Boeing Aerospace Support, the Ritz-Carlton Hotel Co. and Motorola CGISS, as well as small businesses, health care systems, school districts and nonprofits.

It also is important to note that the Baldrige award returned a lot of value for the taxpayer investment through the use of an army of volunteers: examiners, team leaders, site visitors, trainers, etc., all from organizations across the United States.

Finally, the Baldrige award has become the template for similar efforts in many other countries, and UW-Stout has helped universities worldwide to obtain similar performance citations.

So 10 years after receiving the award, the Baldrige ideal—and its practical application—are alive and well at UW-Stout. We hope that even with the loss of federal funding, the program will survive in a legitimate form so that other businesses and organizations can benefit from it as much as UW-Stout.

About the Authors

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ASQ Education Division's Publications on Quality in Education

The number of ASQ publications on quality in education topics has grown in an effort to respond to the diverse needs of our members from our education sectors: K-12, higher education, and workforce development. Some of these publications are sponsored by the Education Division and some by the ASQ marketing group. Except for the *Journal for Quality and Participation*, articles from these publications are available in our online library. There are links to these publications on the right-hand side of our website. The following table summarizes our publications.

QED News, the Division's newsletter, provides information to members on our activities and includes contributed articles on interesting topics related to quality in education. All articles are contributed by Education Division members.

The purpose of the peer-reviewed online publication, *Quality Approaches in Higher Education* is to engage the higher education community and the ASQ Education Division membership in a discussion of topics related to improving quality and identifying best practices in higher education and to expand the literature specific to quality in higher education topics. The journal webpage includes the latest call for articles and all the issues.

The newest addition to our publications is the Division-launched *Workforce Development Brief* for members interested in workforce development. This publication includes two series, one on the basics of adult learning theory and instructional design and the other on the framework for the field of workforce development. If you have an article that describes instructional design or delivery, adult learning theory, or other education topics related to workforce development, please submit it to Deborah Hopen (debhopen@nventure.com). Articles should be 1,000 to 2,000 words and should be accompanied by a brief biography (75-100 words).

The *ASQ Primary and Secondary Education Brief* and *ASQ Higher Education Brief* feature invited articles associated with each issue's particular education-oriented theme. Themes and articles are often suggested by the Division's leadership team. As a special publication, a joint issue on STEM issues is published annually in February to coincide with the celebration of Engineers' Week, since many of our ASQ members are engineers or are in the engineering field.

The *Journal for Quality and Participation* is a long-standing, peer-reviewed, combination print and online publication that focuses on the people side of quality. Each issue includes the department "Educator's World," which is dedicated to quality in education. This journal is published by ASQ.

We encourage you to tell us more about your activities and what you are doing to enhance quality at your institutions. An exchange of ideas, via published articles, helps us to further your research and share ideas with our learning communities so that we can all profit from your expertise.

We welcome your participation as a contributor and reader!

Publication	Sponsor	Invited/Contributed	Peer-reviewed	Frequency	Editors
QED News Division Newsletter	Division	Contributed only by Division members	No	Bi-annual	Marianne Di Pierro
Quality Approaches in Higher Education	Division	Contributed	Yes	Bi-annual	Fernando Padró
Workforce Development Brief	Division	Contributed and Invited	No	Bi-annual	Deborah Hopen
ASQ Primary and Secondary Education Brief	ASQ Publications	Invited	No	Six issues per year	Amanda Hankel
ASQ Higher Education Brief	ASQ Publications	Invited	No	Six issues per year	Amanda Hankel/ Marianne Di Pierro
Journal for Quality and Participation, "Educator's World" department	ASQ	Contributed	Yes	Quarterly	Deborah Hopen

This article is reprinted from the January 2012 issue of the Journal for Quality and Participation *with permission of the ASQ publisher. It discusses the differences between social responsibility and social justice and connects ASQ's focus on social responsibility with educational leader preparation standards.*

ISO 26000 and Educational Leader Preparation

Fernando F. Padró

For those involved in the preparation of educational leaders, it is essential to emphasize the concern leaders should have about the effect of their actions and decisions on society in general. Instead of limiting their focus to student learning, strict regulatory compliance, and interfaces with different political bodies, educational leaders must grasp the concept of and be prepared to integrate their organizations into their societies.

Werner Landecker[1,2,3] developed a model that describes four types of integration: cultural (reflecting what other organizations do), normative (following the rules), communicative (telling the external environment what the organization does), and functional (showing results). The tenets of social responsibility align well with this framework, identifying cultural and normative factors that educational organizations can apply to become integrated to the community.

The ISO 26000 standard describes the components of social responsibility and can be used to develop the mindset, key questions, and necessary skills future educational leaders need to work successfully with different stakeholders from the community. It emphasizes the importance of ethical behavior and transparency in decision making and provides specific normative and regulatory-focused approaches for organizations of different types to make them recognized, legitimate members of a community.

Furthermore, ISO 26000 aligns well with other approaches that are used in the preparation process, such as the following:

- It expands on the Malcolm Baldrige criteria item on social responsibility, which over the years has developed a structure more like the Sarbanes-Oxley Act of 2002.[4]
- It ties into the preparation standards used by the Educational Leadership Constituency Council (ELCC) and the Interstate School Leaders Licensure Consortium (ISLLC). These standards not only provide a means for determining the appropriateness of training programs,[5] but they also impact state licensure requirements for new P-12 school and central office administrators.
- It is anchored on many policy elements found in the statutes and regulations for quality of life measures in the European Union.[6] This may be why the standard seems to fit more easily the EFQM (formerly the European Foundation for Quality Management) Model.

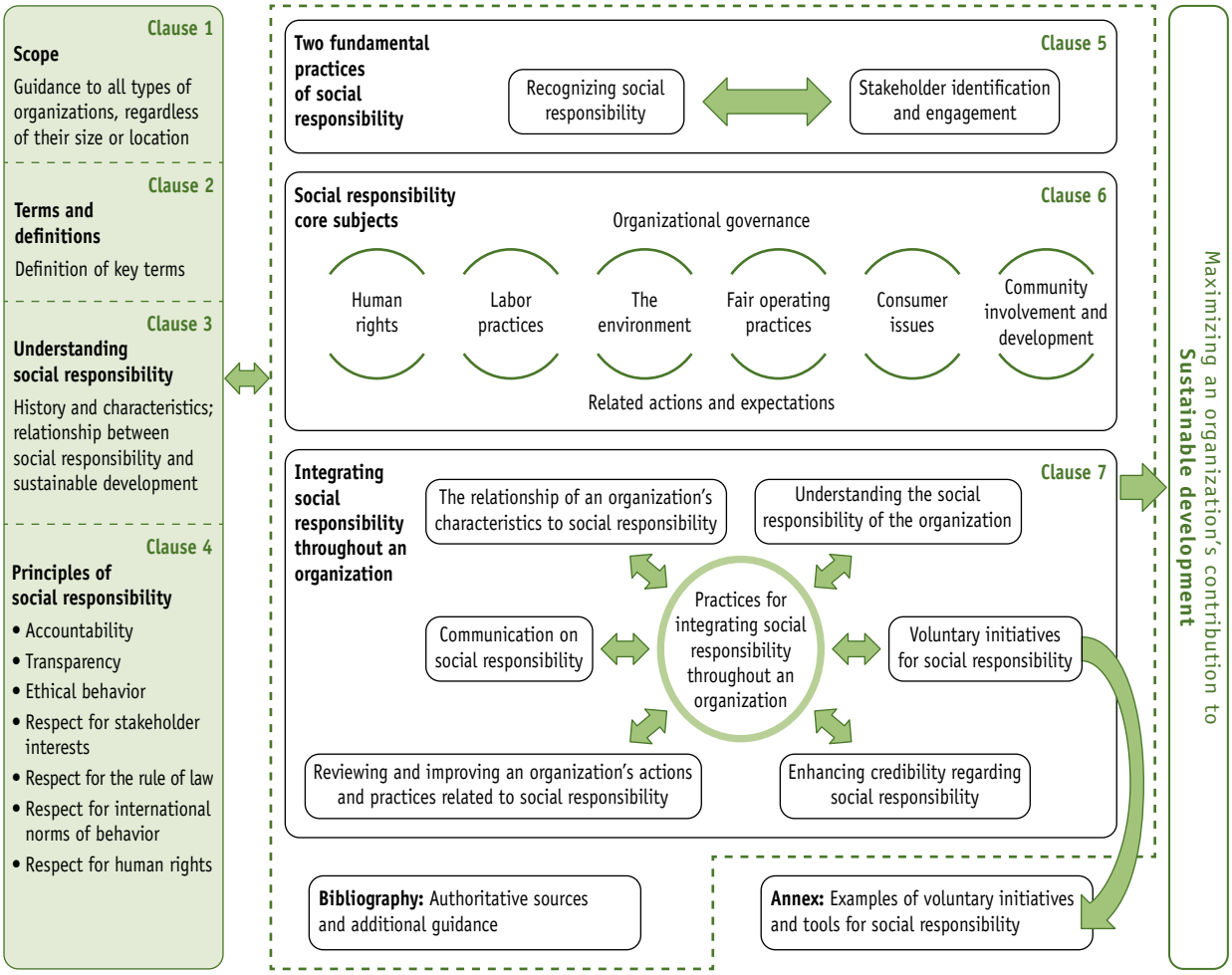
Social Responsibility Differs From Social Justice

Instructors in colleges and schools of education first must consider whether ISO 26000 addresses topics usually thought of as belonging to a social-justice model. Focusing on community relations and how schools can become better community members is not necessarily the same thing as the redress of social inequalities,[7] which, for many educators is an important step in improving student learning.

Although there is no one model of social justice, overall, it can be said that it is distributive, recognitional, and associative in scope.[8] There are economic, political, and social dimensions to these considerations. Social justice pursues changing regulations to redress problems in order to create a just society.[9] Its approach focuses on recognizing individuals' capabilities and ensuring those capabilities can used freely.[10]

Anecdotally, it has been my experience that learners in educational leadership programs whose background is teacher preparation confuse social responsibility and social justice. They have little or no previous exposure to models from business and industry, which would emphasize how schools need to identify and work with different stakeholders.[11] Furthermore, educators tend to hold the view that they automatically are good neighbors because they are preparing children to succeed, thus, considering interactions with the community as less important.

Figure 1: ISO 26000 Schematic[17]



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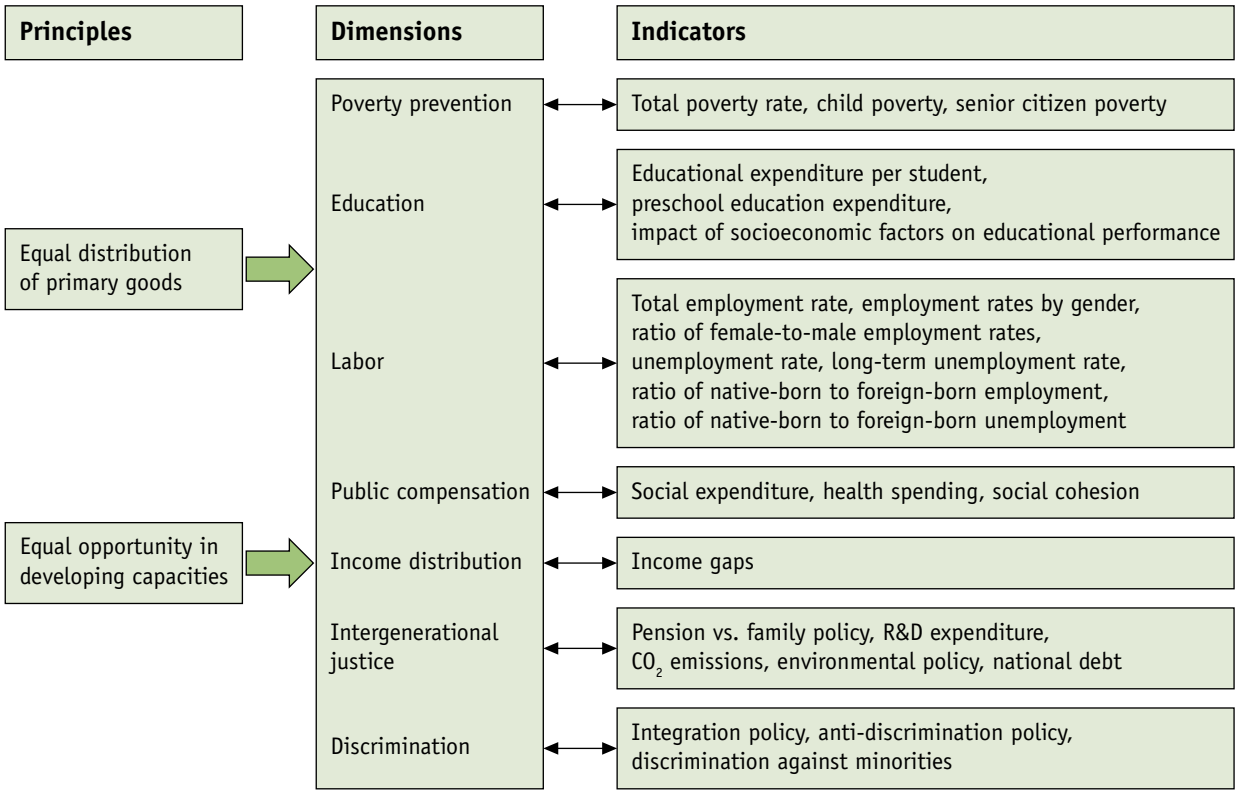
Although the international flavor of ISO 26000 does link social responsibility with aspects of social justice, there are technical differences between the two, as described below:

- ISO 26000 addresses the recognition of human rights from an ethical perspective, indicating that organizational actions must take into account and protect the rights of employees, customers, and citizens.
- The standard seems to focus on regulatory compliance as the fundamental duty of organizations.[12]
- As a model, it is couched in more formalistic terms, e.g., allowing for less choices of interpretation.[13]

Ultimately, the distinction between ISO 26000's definition of social responsibility and educators' accepted views of what social justice entails is similar to the way Sen distinguishes freedom into "opportunity" and "process." Whereas the standard is procedural in nature, social justice entails providing opportunities for affecting an individual's real capability to improve his/her well-being[14] From Sen's perspective, social justice is about making changes "in terms of enhancement of human living and the freedom to live the life that we have reason to value"[12] and, therefore, is about making change to status.

A comparison between ISO 26000 and the approach used by the Organisation for Economic Co-operation and Development (OECD) to

Figure 2: Merkel's Social Justice Construct[18]



Reprinted from http://www.sorsafoundation.fi/documents/key20120118000116/dokumentit/Wolfgang%20Merkel%20Social%20Justice%20and%20Welfare%20State%20in%2021st%20C.pdf.

measure social justice in its member countries makes these differences clear.

- As shown in Figure 1, ISO 26000's principles are accountability, transparency, ethics, respect of stakeholder interests, respect for laws and norms, and recognition of human rights. The emphasis is on the transactional relationship between the organization and its external environment. This relationship is the basis through which the organization identifies itself with a community.
- On the other hand, Figure 2 illustrates how the OECD defines social justice, using Wolfgang Merkel's model. In this case, the emphasis is on the twin pillars of equal distribution of primary goods and equal opportunity in developing capacities, which are based appropriately on the traditional social contract according to Nussbaum[15] (rather than a transactional relationship).

The social responsibility model of ISO 26000, therefore, might be viewed as being a subset of social justice; however, the degree of linkage would be bounded by the philosophical and political perspectives that drive both models.

Aligning ELCC/ISSLC Standards With ISO 26000

ISO 26000 can help prepare the next generation of primary to 12th grade education administrators by providing guidelines on how to meet certain aspects of the ELCC/ISSLC standards and state licensure standard requirements. Figure 3 shows which ELCC/ISSLC standards can be linked to ISO 26000 to meet current or proposed state licensing standard requirements, such as the proposed Massachusetts state standards.[16]

ISO 26000 emphasizes that there is more to community relations than public relations, conducting campaigns to raise funds, and determining barriers that impede the relationship between parents and schools. Although these are

Figure 3: Linkage of ELCC/ISSLC Standards to ISO 26000

important considerations, becoming a partner and advocate, as described in ISO 26000 requires more in-depth preparation. This standard goes further by encouraging organizations to take the following actions:

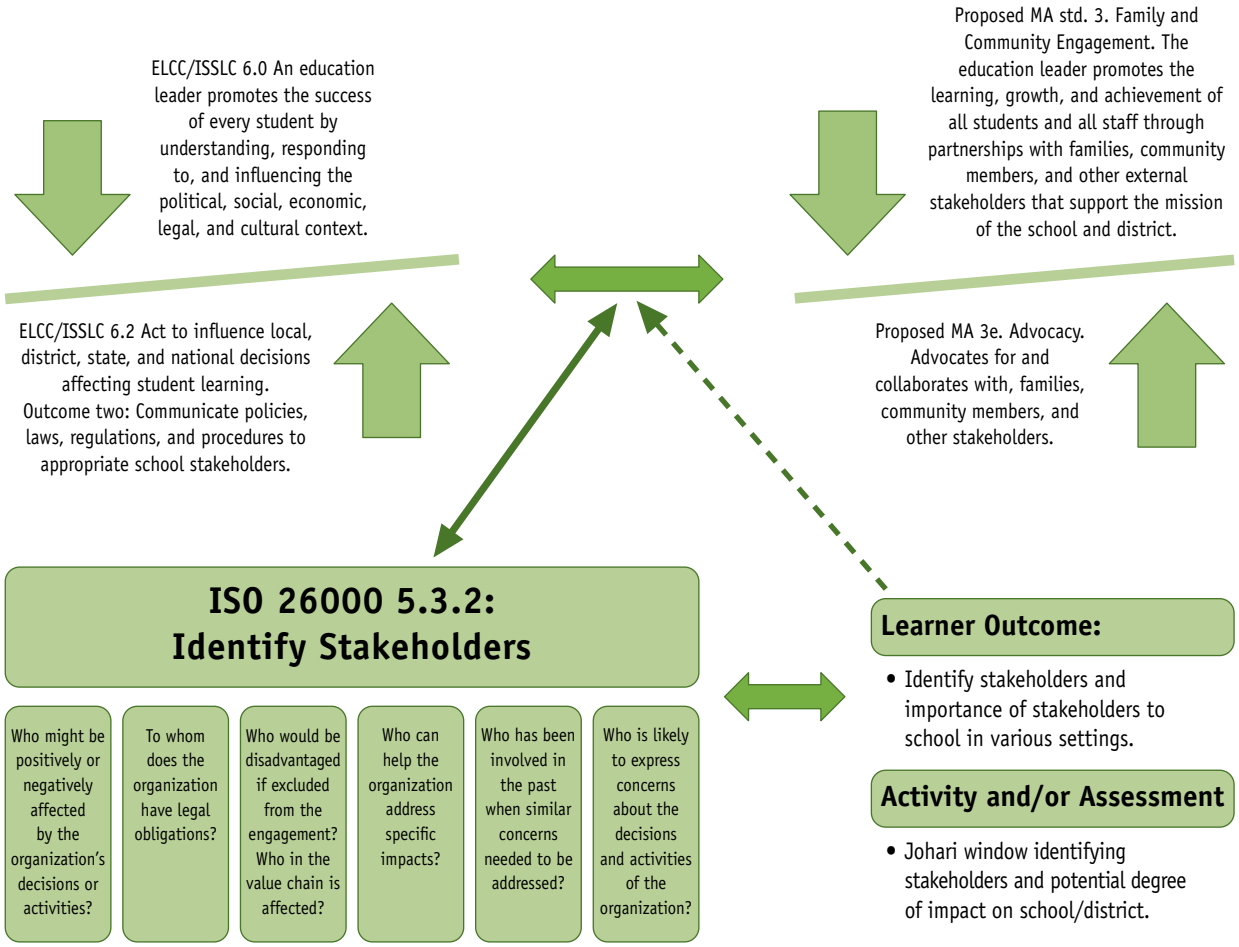
- Identify stakeholders and their interests.
- Understand the community's demographics and needs.
- Communicate and demonstrate commitment to student learning and community support, as appropriate and feasible.
- Know what to look for when scanning legal and political environments.

Figure 4 provides an example of how ISO 26000 can help meet the following specific sub-standards:

- Promoting the success of every student and influencing the external environment (ELCC/ISSLC 6.0/6.2).
- Increasing the capability to be an advocate for the family and community (proposed MA standard 3/3e).

This example reflects the difficulties educational leadership students have in identifying and working with stakeholders. ISO 26000 helps instructors address ELCC/ISSLC standards, state licensing

Figure 4: Example—Using ISO 26000 to Meet Sub-Standards



requirements, and suggests activities/assessments that demonstrate student competence in working with stakeholders.

Conclusion

A careful look at the ELCC/ISSLC standards suggests that educational leaders must have a systemic perspective and skills for enhancing and demonstrating how schools and districts are fundamental and performing parts of the community. More and more states are expanding their licensure standards to include this perspective. Including a social responsibility component based on the ISO 26000 standard in educational leader preparation programs can help students develop the skills necessary to understand and deal with the many critical issues that influence how educational institutions are viewed and what is expected of them.

Additionally, ISO 26000's social responsibility model also increases consciousness regarding the imprint an organizational structure has on its surroundings (e.g., ergonomics and environmental considerations. These concepts are not a fad; they tie into long-standing concerns, such as emergency planning, risk management, and work safety. A closer look at ISO 26000 is worthwhile because educational leaders preparation' standards are placing a greater directional emphasis on schools working with community stakeholders.

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Education DIVISION STRATEGIC PLAN 2011- 2012

Education Division
The Global Voice of Quality™

MISSION

To promote networking worldwide on quality in education, including K-12, Higher Education and Workforce Development.

VISION

Shaping the future through quality in education and professional development.

VALUES & BELIEFS

We believe that:

- Members network in different ways.
- Our networking will improve student learning outcomes and achievement at all levels.
- Our networking will improve excellence in our education systems throughout the world.
- Helping low income school systems to achieve student success is part of ASQ's social responsibility focus.
- Effective collaboration requires trust and mutual respect
- We encourage student members to network with us as they develop a career as a quality educator.
- Continual member feedback through surveys guides improvement.

GOALS

- To network to improve student success at all levels.
- To use members' dues effectively.
- To support ASQ's global and social responsibility initiatives.
- To increase member satisfaction and participation in the Education Division.
- To empower educators to demonstrate 21st century leadership and learning.
- To provide publications, conferences and discussion boards for networking on quality in education and to provide targeted networking for each focus area: K-12, Higher Education and Workforce Development.
- To show how quality thinking can improve solutions to current educational challenges such as preparing students as leaders in the 21st century, decreasing the achievement gap, improving STEM education and providing a learning culture in the workforce.

GUIDING PHILOSOPHY

We think of Quality in Education in two ways:

- "QUALITY in Education" Attaining excellence in the education system by monitoring key performance indicators and performing the strategic and tactical work necessary to meet goals and improve continually.
- "Quality in EDUCATION" Integrating quality leadership, thinking, concepts, and skill areas in K-12, higher education, and workplace curricula and classrooms.

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