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Notes from the Editor

by Arthur Jones, EdD, RRT

Teaching is not a lost art, but the regard for it is a lost tradition.
– Jaques Barzun

Colleagues, please note the above quotation. Although I have my own thoughts concerning the accuracy of this statement, I think it would be more interesting to relate the comments from other members of this collective. Have your students changed considerably over the years? If so, in what ways? Even more importantly, how must educators adjust their practices to ensure competency in future graduates of respiratory care programs? How must we adjust our own attitudes to preserve our

integrity and sanity as we do this?

If you would, please email your objective thoughts on this important topic to me by October 10. I'll do some kind of compilation and try to arrive at a general consensus (as well as the perfect solutions to all of our problems). This is not intended as a research project; it's just intellectual curiosity. Your names will not be attached to any statements unless you want to claim authorship. If I receive a large enough response by the October 10 deadline, I'll publish the results in the November-December issue, which will be my final issue as *Bulletin* editor. Thank you, in advance. ■

Notes from the Chair

by David W. Chang, EdD, RRT

Anyone can hold the helm when the sea is calm.
– Publilius Syrus (first century B.C.),
Maxim 358

A recent study showed that quitting smoking has had a dramatic effect on the number of British lung cancer deaths. In fact, quitting smoking at any age helped to reduce smoking-related deaths by 50%. On the flip side, one billion people will die in the 21st century if current smoking trends continue. In Britain alone, six of 12 million smokers will be killed by tobacco unless they stop. If similar mortality rates are applied to the United States, where 50 million people smoke, 25 million will die from smoking if they do not quit. With an estimated 1.1 billion smokers worldwide, the number of potential tobacco-related deaths is alarming.

According to Professor Richard Peto, of the Imperial Cancer Research Fund, "it pays to stop smoking at any age." Smoking cessation is the most vital key to longer life expectancy. It is also by far the least expensive way that health care professionals can help the public.

Smoking cessation can easily be built into our tight RT curriculum. For instance, this topic is suitable in respiratory physiology, pathophysiology, pulmonary function, or rehabilitation. Clinical experience in smoking cessation may be gained in the pulmonary function lab, physician's office, smoking cessation classes, etc. The payoff may not be immediate, but including a topic on smoking cessation in our curriculum is essential for our students and crucial for our health care consumers. ■

Computer Conferencing as an Active Learning Tool

by Ellen A. Becker, PhD, RRT, respiratory care division, Long Island University, Brooklyn, NY

One method of actively involving all students in problem-solving activities is to organize students into computer conferencing groups. In computer conferencing, students communicate with one another through electronic messages. The conferencing software allows students to group together messages that relate to a single topic. This ability to group related messages makes it easier for all participants to follow the discussion.

Over the past two years, I have utilized

computer conferencing with junior baccalaureate degree students. Each week, groups consisting of four students each address an application or analysis level question related to the current course content. Each group member posts an original response to the question on the computer conferencing board during the first half of the week. At least one more posting

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that clarifies or extends the messages of the student's team members is due from each group member sometime during the remainder of the week. Each posting counts as a single homework assignment and, as such, impacts the final course grade.

The design of this learning activity encourages participation by all group members. Students who either do not think as quickly as their peers or are not comfortable articulating their ideas can take extra time or utilize exter-

nal resources to construct their responses. Computer conferencing also requires students to practice their written communication skills and learn computer skills. The use of the computer's spell and grammar checking functions is encouraged. The content of the students' written discussion provides the course instructor with immediate feedback about what the students understood and where misconceptions occurred. This activity allows both instructors and students to identify content requiring further study prior to exams.

Feedback from students has been mixed. Some find the weekly assignments time-consuming and prefer to discuss topics orally

rather than through a written medium. A few students reported that they found it easier to write as the semester progressed. Students also preferred to receive weekly written feedback within the conferences as opposed to getting group feedback in class.

From a faculty perspective, it takes about an hour each week to read and write responses for a class of 20 students.

Using computer conferencing is one method of pacing students' learning and provides early identification of students who are having trouble with the course. ■

Our 2000 Specialty Practitioner of the Year Nominations

by Terry S. LeGrand, PhD, RRT, chair, Education Section Specialty Practitioner of the Year Committee, University of Texas Health Science Center at San Antonio, department of respiratory care, San Antonio, TX

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The nominations for the 2000 AARC Education Section Specialty Practitioner of the Year award are in! This recognition is given to Education Section members who have made a significant contribution to the profession as respiratory care educators and/or who have served the Education Section in some capacity.

This year's nominees are Debra J. Lierl, MEd, RRT, program chair for respiratory care and EMT

at Cincinnati State Technical and Community College in Cincinnati, OH, and William F. Galvin, MEd, RRT, program director for respiratory care at Gwynedd Mercy College in Gwynedd, PA. Congratulations to both of you on your nominations. The recipient of the 2000 AARC Education Section Specialty Practitioner of the Year Award will be announced at the AARC International Congress in Cincinnati, OH in October. ■

Favorite Website

by Arthur Jones

<http://www.icondata.com/health/pedbase/index.htm>

This website is of particular interest to those who teach pediatric respiratory care. From the site, you can download a database of 509 different pediatric conditions which includes an outline of important information for each condition. The database, called "Pedbase," was designed by Dr.

Alan Gandy, who is a pediatric specialist on Prince Edward Island, Canada.

Pedbase is shareware, so you can download it at no charge. It occupies about 9.4 M hard drive space, and it would be very interesting and useful for instructors, students, and practitioners. A registered version, with additional features, can be purchased for \$50. ■

Summer Forum Abstracts

Editor's Note: The following are two of five education abstracts presented at the Summer Forum last June. The remaining three abstracts will appear in our November-December issue.

The Modified Borg Dyspnea Scale: Like Pulling Numbers from a Hat?

by Terry S. LeGrand, PhD, RRT, Shana Giles, and David C. Shelledy, PhD, RRT, University of Texas Health Science Center at San Antonio, San Antonio, TX

The Borg scale is frequently utilized during asthma, pulmonary, or cardiac education programs to quantify patients' progress in learning disease management. The Borg scale was designed in 1962 to rate perceived exertion during exercise and was modified in 1982 to measure a patient's perceived intensity of dyspnea using a 12-point scale.

Conflicting results have been reported in studies designed to correlate the modified Borg scale with indices of pulmonary and physical

function. For example, there was no significant difference between Borg scores before and after a pulmonary rehabilitation program in which there were significant increases in metabolic and physical function parameters. Another study showed that Borg scores demonstrated a positive correlation with VO₂ and VE measurements, yet lacked within-subject reproducibility.

The objective of our research was to deter-

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mine if the modified Borg scale is a valid tool to quantify outcomes associated with disease management education programs. Borg dyspnea scores were collected on asthmatics (n=43) who presented to the emergency department during acute asthma exacerbation. Subsequently, scores corresponding to the Borg scale were assigned in a blinded fashion to these subjects by randomly selecting cards from a box. Means were compared using a paired t-test.

Our results showed that there was no significant difference between mean dyspnea scores reported by asthmatics and randomly assigned scores (4.21 ± 2.7 vs 4.74 ± 2.9 , $p = 0.38$).

We conclude that while the modified Borg scale may be a useful determinant of a patient's subjective level of distress during a given episode of dyspnea, its use as a measure of the effectiveness of disease management education is questionable. Respiratory therapists who teach disease management programs and routinely use the Borg scale should be aware of its limitations,

and that it may, in fact, be no more significant than “pulling numbers from a hat.” The unreliability of Borg scores found in this study, coupled with limitations shown in other studies, demonstrates the importance of utilizing objective measures of progress, such as exercise tolerance, pulmonary function, and standardized measures of health-related quality of life, to determine the effectiveness of education in disease management programs. ■

The Effectiveness of Standardized Self-Assessment Examinations and Graduate/Employer Evaluations in Predicting Graduate Pass Rates on the Certification and Registry Examinations

by Terry S. LeGrand, PhD, RRT, and David C. Shelledy, PhD, RRT, University of Texas Health Science Center at San Antonio, San Antonio, TX

Pass rates on the NBRC national board examinations comprise an important respiratory care education program outcome that reveals the degree to which schools prepare respiratory therapists to perform competently in the clinical setting.

Our objective in this study was to define program-related factors associated with improved graduate outcomes by determining if pass rates for the certification self-assessment examination (CRTT-SAE), the written registry SAE (WRRT-SAE), the clinical simulation SAE (CSE-SAE), and employer/graduate cognitive evaluations correlate with pass rates on the actual CRTT, WRRT, and CSE. Data reported on the 1996 accreditation Report of Current Status for all currently accredited respiratory therapist programs (n=300) was provided to the researchers in a blinded fashion so that specific program names and personnel could not be identified. Correlation coefficients were calculated for predictor variables for CRTT, WRRT, and CSE performance.

Correlation coefficients by specific program factors are shown in Table 1. The CRTT-SAE was a moderate predictor of the CRTT percent pass rate, accounting for 20.25% of the variance, and a weak predictor of the WRRT and CSE percent pass rates, predicting 8.4% and 7.3% of the variance, respectively. The WRRT-SAE was a very weak predictor of the CRTT percent pass rate, accounting for only 2.25% of the variance, and did not predict WRRT or CSE performance at all. There was no relationship between CSE-SAE performance and national exam pass rates, nor did employer or graduate cognitive evaluations demonstrate such correlations.

In conclusion, our study showed that there were significant correlations between pass rates on all NBRC board exams and performance on the CRTT-SAE, while the WRRT-SAE was positively correlated only with the CRTT percent pass rate. This discrepancy may be due to the fact that some programs actively prepare students to take the WRRT-SAE and CSE-SAE, while others use

these exams as “wake-up calls” to demonstrate students' areas of strength and weakness. Using SAEs in this manner enables students to focus appropriately during their preparation for the actual board exams, but negates their value as a predictor of performance on registry level exams. ■

	Mean (SD) Scores			
	Sponsor			
	Technical Institute (n=28)	Community College (n=159)	Four-Year College (n=23)	University (n=66)
CRTT % Pass	93.9 (13.1)	96.7 (5.6)	97.6 (4.4)	94.2 (14.3)
WRRT % Pass	86.3 (12.2)	85.6 (12.1)	90.3 (10.1)	87.2 (12.8)
CSE % Pass	79.6 (15.8)	80.3 (14.3)	87.0 (12.1)	81.6 (14.1)
EMP % COG	94.6 (12.1)	91.6 (11.8)	88.7 (16.4)	94.3 (8.2)
EMP % PSM	94.9 (15.2)	92.4 (13.7)	91.9 (15.1)	94.6 (9.4)
EMP % AF	93.0 (9.0)	93.0 (12.3)	92.8 (14.3)	95.6 (6.7)
GRAD % COG	93.3 (9.1)	92.1 (12.5)	89.8 (20.8)	91.3 (12.6)
GRAD % PSM	91.8 (18.2)	92.2 (15.3)	91.0 (15.6)	91.9 (11.8)
GRAD % AF	98.1 (3.6)	94.2 (11.9)	98.8 (1.5)	95.5 (8.8)
ATTRITION	21.7 (12.7)	25.2 (14.5)	19.1 (13.6)	17.6 (12.0)
PLACEMENT	94.1 (7.0)	94.8 (7.8)	94.2 (7.1)	94.2 (8.5)

	Mean (SD) Scores		
	Degree Awarded		
	Certificate (n=13)	Associate (n=221)	Bachelors (n=40)
CRTT % Pass	85.6 (25.8)	96.9 (5.97)	94.5 (12.3)
WRRT % Pass	82.7 (16.7)	86.1 (11.7)	89.7 (12.5)
CSE % Pass	78.3 (16.98)	80.8 (14.4)	83.2 (12.0)
EMP % COG	89.2 (18.7)	92.5 (10.7)	92.1 (13.7)
EMP % PSM	91.1 (16.1)	96.8 (56.6)	94.9 (11.8)
EMP % AF	92.8 (15.1)	93.6 (10.7)	94.7 (11.6)
GRAD % COG	86.2 (17.7)	93.5 (10.6)	85.0 (19.3)
GRAD % PSM	92.0 (13.8)	92.4 (14.8)	89.6 (16.3)
GRAD % AF	96.3 (4.5)	95.6 (9.9)	94.3 (11.4)
ATTRITION	19.4 (9.0)	24.5 (14.2)	12.5 (10.3)
PLACEMENT	92.7 (8.5)	94.6 (7.8)	94.8 (7.9)

CRTT % Pass – Percent pass rate of program graduates on the NBRC certification examination.
WRRT % Pass – Percent pass rate of program graduates on the NBRC written registry examination.
CSE % Pass – Percent pass rate of program graduates on the NBRC clinical simulation examination.
EMP % COG, PSM, and AF – Percentage of program graduates meeting or exceeding the cut score for success on employer cognitive (COG), psychomotor (PSM), and affective (AF) evaluations.
GRAD % COG, PSM, and AF – Percentage of program graduates meeting or exceeding the cut score for success on graduate cognitive (COG), psychomotor (PSM), and affective (AF) evaluations.
ATTRITION – Percentage of students completing the program
PLACEMENT – Percentage of graduates finding employment in the field within six months of graduation.

Submission Guidelines for Bulletin Articles

All section members are encouraged to share information about their programs through articles in the *Bulletin*. Here are our guidelines for submission:

Article length: *Bulletin* articles may be between 500 and 1,000 words.

Format: In addition to a paper copy, all articles must be submitted on a 3 1/2 inch floppy disk saved in Microsoft Word or TEXT ONLY (ASCII) formats, or e-mailed to the editor in one

of those formats.

Deadlines: All articles must be submitted to the editor according to the following schedule of deadlines-

- Jan.-Feb.: December 1
- Mar.-April: February 1
- May-June: April 1
- July-Aug.: June 1
- Sept.-Oct.: August 1
- Nov.-Dec.: October 1

Article Review: All authors may review a copy of their article before it goes to press. If you would like to review a copy of your article, please include a FAX number when you submit it to the editor. It is the responsibility of the author to: 1) request the opportunity to review the article before it goes to press, and 2) contact the editor by the stated deadline if any changes need to be made before the article goes to press. ■

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