A national in-service training examination for advanced education students in pediatric dentistry (Pedsite)

Robert E. Primosch, DDS, MS, MEd

In the early 1980s, the Pedodontic Section of the American Association of Dental Schools developed a prototype test item bank for the purpose of evaluating the progress of postdoctoral pediatric dental students through their educational experience. The purpose of the test item bank was to have a repository of questions which could be randomly selected to create an annual examination. The test bank was coordinated under the direction of Dr. Stephen Goepferdt at the University of Iowa and was known as PEDCATS. Test questions were voluntarily submitted by dental educators throughout the United States and entered into this computerized item bank for storage and retrieval. Program directors requesting examinations received a randomized selection of questions from the test bank. Unfortunately, only three postgraduate programs subscribed to the service and the project was discontinued due to underutilization. The test item bank was archived at the University of Iowa and is still available for use today.

Although pediatric dentistry was unable to sustain interest in maintaining and utilizing a centralized test item bank for the in-service evaluation of postdoctoral students’ progress, two other dental specialty organizations were successful in achieving that goal. The American Association of Oral and Maxillofacial Surgery (AAOMS) has been conducting the “OMSITE” for over 18 years. Currently, all 110 postdoctoral programs participate with the intention to help identify curriculum deficiencies in their programs. Approximately 800 OMS students take a 250 multiple choice item exam, divided into five topic categories, every April at 90 test sites. The registration fee is $135.00 per student. The in-service exam is written and approved by an AAOMS committee which hires ACT at the University of Iowa as its support service for final exam generation, distribution, scoring and analysis.

The American Academy of Periodontology (AAP) is the other dental specialty organization successfully engaged in the in-service testing of its postdoctoral students. Their examination is comprised of 425 multiple choice questions based on the current dental literature. It is given annually to 385 students in 49 out of the 52 accredited programs. Two committees are assigned with the task of developing the annual exam. One committee serves for test construction and meets for three days every year and the other committee serves to validate the exam which takes as additional day of activity. The AAP has been conducting this exam for the last nine years and uses the support services of the Professional Testing Service in Orlando, Florida. The registration fee is $60.00 per student. The AAP underwrites approximately 40% ($16,000) of the expenses incurred in the production and administration of this annual examination.

Our pediatric dental postdoctoral students as well as their educational training programs could benefit substantially from the creation of an in-service examination. The purpose of this national in-service training examination would be to provide an annual, standardized examination of pediatric dental postdoctoral students which would support accredited programs in achieving the following objectives:

1. To evaluate postdoctoral student academic achievement and progress
2. To assist in program evaluation and outcome assessment as required by current accreditation standards
3. To emphasize relevance and importance of curricula as established by the accreditation standards
4. To assist postdoctoral student preparation for board certification.

Believing that it is time for the American Academy of Pediatric Dentistry (AAP) to support the development of this testing activity, the concept was brought before the AAPD Education Committee for further exploration.

AAPD Education Subcommittee

A subcommittee of the AAPD Education Committee was appointed and charged with the duty to “investigate the feasibility of a national standardized written examination for students in pediatric dentistry postdoctoral training programs”. The members of the
The American Academy of Pediatric Dentistry has charged its Education Committee “to investigate the feasibility of a national standardized written examination for students in pediatric dentistry postdoctoral training programs”. In order to accomplish that task the Committee agreed that it was necessary to develop a needs assessment and willingness to participate survey of all program directors.

The purpose of the national in-service training examination is to provide an annual, standardized examination of pediatric dental postdoctoral students which would support accredited programs in achieving the following objectives:

1. To evaluate postdoctoral student academic achievement and progress,
2. To assist in program evaluation and outcome assessments as required by current accreditation standards,
3. To emphasize relevance and importance of curricula as established by the accreditation standards, and
4. To assist postdoctoral student preparation for board certification.

Please take a few minutes of your time to complete the survey.

Thank you.
R. Primosch, M. Dock, R. Henry, S. Seale

Director’s name: __________________________
Program’s name: __________________________

How many residents per year do you currently have in your program? ___

What is the length (in months) of your program? ___ mos.

Do you currently evaluate your students by a comprehensive written examination? Yes No

If yes, is the examination part of your outcome assessment plan? Yes No

Do you support the concept of a national standardized examination as stated in the above objectives? Yes No

If no, why not? ____________________________________________

If such an examination was developed and available to your students:

Do you think that the exam should be taken on a ___ basis by your students? voluntary mandatory

Do you think the exam should be taken by your students at the ___ of the program? (check all that apply):
beginning middle end other: ___

How long do you think the exam should be? 2 hr 4 hr 6 hr 8 hr

Do you believe that the expense of exam development and administration should be shared with the Academy by the:
program student both

What do you think is an acceptable fee per student to charge? $ ___

Do you have multiple choice test items which you would be willing to share with a test construction committee? Yes No

Would you be interested in serving on a test construction committee for the purpose of this exam development and evaluation? Yes No

Survey
As part of the survey package sent to all program directors in preparation for the national program director’s meeting, a survey was mailed to all 54 advanced education programs (Fig 1).

Survey results
A total of 50 of the 54 programs (93% response rate) completed the survey. Dr. Murray Dock was generous to volunteer his time to tabulate the results of the survey.
Do you currently evaluate your students by a comprehensive written examination?

Yes (19) 40%  No (30)  ? (1)

If yes, is the examination part of your outcome assessment plan?

Yes (17) 89%  No (2)

Do you support the concept of a national standardized examination as stated in the above objectives?

Yes (41) 85%  No (7)  ? (2)

If no, why not?
- not needed, program accomplishes above objectives without it
- difficult to design exam that is fair due to program diversity
- should use the Board certification exam to accomplish objectives

Do you think that the exam should be taken on a ___ basis by your students?
mandatory (34) 76%  voluntary (11)  ? (2)

Do you think the exam should be taken by your students at the ___ of the program?
beginning 1  beginning and end 21
middle 2  beginning and middle 1
end 16  middle and end 2
19 24
no (negative) response 7

How long do you think the exam should be?
2 hours 13
4 hours 22
6 hours 4
8 hours 4
no (negative) response 5

Do you believe that the expense of exam development and administration should be shared with the Academy by the:
program 21
student 2
both 16
no response 11

What do you think is an acceptable fee per student to charge?
$10–30 6
$50–75 7
$90–150 14
no response 23

Do you have multiple choice test items which you would be willing to share with a test construction committee?
Yes 31
No 15
no response 4

Would you be interested in serving on a test construction committee for the purpose of this exam development and evaluation?
Yes 28
No 17
no response 5

Conclusions

The data are self-explanatory and can be summarized as follows:

1. 93% of all programs responded.
2. 60% of the programs do not administer a comprehensive written examination to their students; those programs that do, incorporate the results as part of their outcomes assessment plan.
3. 85% of the programs support the concept of a national standardized exam; those programs not in favor cited redundancy with the Board certification examination or a reluctance due to program diversity.
4. If an exam were developed, most respondents felt that it should be mandatory for students in their programs, approximately 2-4 hours in length, and cost-shared.
5. Approximately half of the programs would administer the test twice during the student’s training period (use the exam as part of outcomes assessment). While the other half of the programs would administer the exam once (use the exam for student evaluation).
6. The majority of respondents (50-60%) expressed willingness to provide material for the exam and/or to participate in its development.

Overall, the response was positive. Based upon this conclusion, I recommend that we proceed to item #6 on the Action Plan.

Dr. Primosch is program director, Department of Pediatric Dentistry, University of Florida, Gainesville.