Dental Assisting Core Competencies Study

ADAA/DANB Alliance June 15, 2005

### Background

In 2000, the Dental Assisting National Board, Inc. (DANB) and the American Dental Assistants Association (ADAA) formed a joint committee, the ADAA/DANB Alliance (formerly the ADAA/DANB Ad Hoc Committee to Enhance the Dental Assisting Profession). This committee has met twice a year since its inception. It has been addressing many issues of interest to the dental assisting profession, primarily to develop a ranking of core competencies for dental assistants from most basic (entry level) to most complex (the expanded functions level).

The purpose of the current study by the ADAA/DANB Alliance is to define and rank core dental assisting competencies in support of one national set of dental assisting tasks, levels, and minimum requirements to perform these tasks, and to reinforce the concept of a viable career ladder for dental assistants. Defining one set of national core dental assisting tasks, levels, and requirements will help states address access to oral health care issues. In Oral Health in America: A Report of the Surgeon General, published in May 2000, then United States Surgeon General David Satcher, MD, PhD discussed a silent epidemic of oral diseases, and asked oral healthcare professionals to work together to "remove known barriers that stand between people and oral health services." Defining a national set of dental assisting tasks and requirements to perform those tasks will enable dentists to delegate identified tasks to dental assistants who have met educational/training requirements and have demonstrated competency on the tasks. This will allow dentists to focus on dentistry and assistants to perform delegated duties, with appropriate education, training, and credentialing, if required. thus increasing access to care. Defining the duties of dental assistants, identifying educational/training requirements and providing a legally defensible and psychometrically sound way to demonstrate competency will strengthen the dental team, making it more efficient and better able to meet the oral health care needs of the public.

The current study consists of four phases. During Phase I, Certified Dental Assistants (CDAs) and Directors from dental assisting programs accredited by the American Dental Association's (ADA's) Commission on Dental Accreditation (CoDA) were surveyed. Non-Certified assistants were surveyed during Phase II. During Phase III, dentists were surveyed. CDAs and Program Directors from ADA-accredited dental assisting programs were resurveyed using an updated rating scale during Phase IV.

#### **D**ATA AND METHODS

#### Instrument

DANB's General Chairside Exam Committee developed the Core Competency Survey during its fall 2001 annual meeting, based on task development groundwork accomplished by the ADAA/DANB Alliance in Fall 2000, using DANB's Task Analysis as a reference point. The General Chairside Exam Committee is composed of two CDAs, two dentists, a DANB Board of Directors representative, and DANB's psychometrician, with all oral healthcare content expert members on this Committee representing different areas of the country with a mix of clinical and didactic work experience. Together they developed definitions for different levels of dental assisting to be used in the survey. Additionally, the committee reviewed the ADAA/DANB Alliance's list of major tasks performed by dental assistants of all levels.

Phase I of the Alliance's work surveyed CDAs and program directors from ADAaccredited dental assisting programs. The second phase surveyed non-Certified assistants. The survey used for Phases I and II included 70 tasks. Below are the category definitions used for Phases I and II:

- <u>Entry level</u> (Entry) No minimum education, training, or experience should be required (though the task may require a short orientation in order to perform it).
- <u>Dental Assistant level</u> (DA) Up to 12 months of formal education or training, OR less than 2 years full-time or up to 4 years part-time dental assisting work experience. (These tasks are appropriate for relatively new on-the-job-trained assistants (OJTs) and students currently enrolled in a formal dental assisting education program.)
- <u>Certified Dental Assistant (CDA)/Registered Dental Assistant (RDA)</u>
   <u>level</u> (CDA/RDA) At least 12 months of formal education or training OR 2+ years of full-time or 4+ years of part-time work experience (or some combination of full- and part-time experience). (These tasks are appropriate for dental assistants who have completed a formal dental assisting education program or who are highly experienced OJTs.)
- <u>Expanded Functions Dental Assistant (EFDA) level</u> (EFDA) Specific, advanced education or training required in addition to or beyond the CDA/RDA level.

These categories were changed for Phases III and IV. The words used to describe the categories for Phases I and II already have predefined meanings to individuals in the dental profession. For Phases III and IV, we wanted to make the categories more generic. We attempted to do this by using the following category descriptions:

- <u>CATEGORY A</u>: These are the most basic dental assisting tasks: No minimum experience, training, or education should be required to perform the task (though the task may require a short orientation in order to perform it); that is, in order to perform a Category A task, the assistant needs only to be provided with short, one-time verbal instructions or read a short instruction sheet.
- <u>Category B</u>: These tasks are of low to moderate complexity, requiring less than 2 years full-time or up to 4 years part-time dental assisting work experience OR up to 12 months of formal education or training in order to perform this task. Tasks in Category B are appropriate for relatively new OJTs and students currently enrolled in a formal dental assisting education program.
- <u>Category C</u>: These tasks are of moderate complexity, requiring 2 + years of full-time or 4 + years of part-time work experience (or some combination of full and part time experience) OR at least 12 months of formal education or training. (Tasks in Category C are appropriate for dental assistants who have completed a formal dental assisting education program or who are highly experienced OJTs.)
- <u>Category D</u>: These tasks are most complex. In order to perform Category D tasks, the dental assistant would require specific, advanced education or training in addition to or beyond the level required for Category C tasks.

The same tasks that were used in Phase I and II of the research project were used for Phases III and IV with one clarification. The first version of the survey included the task 'Write prescriptions.' For Phases III and IV this task was rewritten to read 'Phone in prescriptions at the direction of the dentist.' The entire survey is located in Appendix A.

### Sample

All participants received a Core Competency Survey packet containing a welcome letter (including instructions), survey (containing 70 tasks), and a demographic survey/questionnaire. A description of the predefined categories (A, B, C, D) to classify the tasks was provided to each participant. Participants were instructed to rate each task in terms of the training, education, and/or experience they believe **should**  **be** required to perform it (what should be required, not what is currently required according to the dental practice act in the survey respondent's state).

### Dentists

During the week of November 17, 2003 a total of 5,000 Core Competency Survey packets were mailed (see Appendix A) to a stratified (by state) random sample of dentists from the ADA mailing list. In entering the demographic data and comments from the Phase III surveys, DANB staff noted that in some instances dental assistants completed the survey instead of the dentists. DANB staff members were able to identify 26 surveys that were completed by assistants (because assistants indicated on the survey that they completed it in place of their employers). These surveys were pulled out and the analysis was run without them.

The survey of dentists had a return rate of 11%. A total of 544 completed surveys were returned to DANB. An additional 205 incomplete surveys were returned due to incorrect addresses. Not all participants returned the demographic portion of the survey; a total of 527 demographic surveys were returned. The majority of dentists are in private practice (97%), practicing general dentistry (82%). Eighty-six percent (86%) have been in practice for more than 10 years. The responding private practitioner dentists employed an average of 2.8 dental assistants and an average of 1.7 dental hygienists.

### Certified Dental Assistants

In January 2005, a total of 2,500 Core Competency Survey packets (see Appendix B) were mailed to a stratified (by state) random sample of CDAs. A total of 728 completed surveys were returned to DANB from CDAs. An additional two incomplete surveys were returned due to incorrect addresses. The survey of CDAs had a return rate of 29%. Not all participants returned the demographic portion of the survey; a total of 724 demographic surveys were returned.

The majority of the participants are in private practice (78%), employed by dentists practicing general dentistry (71%). Fifty-eight percent (58%) have been dental assistants for more than 10 years. Fifty-eight percent (58%) believe that their employer supports Certification.

### Directors of ADA-Accredited Dental Assisting Programs

In January 2005, 236 directors of ADA-accredited dental assisting programs received a Core Competency Survey packet (see Appendix C). A total of 112 completed surveys were returned to DANB from these educators. No surveys were returned due to incorrect addresses. The survey of Program Directors had a return rate of 41%. Not all participants returned the demographic portion of the survey; a total of 110 demographic surveys were returned. Eighty-four percent (84%) of respondents have been in practice as dental assisting educators for more than 10 years. Sixty-three percent (63%) believe that their employer (educational institution) supports certification.

#### Non-Certified Dental Assistants

A postcard briefly describing the project was mailed (see Appendix D) to a random sample of 2,500 dental offices (stratified by state) in an attempt to reach non-Certified Dental Assistants (non-CDAs). The postcards were addressed generically 'to the dental assistant' at each office. Fifty-eight (2%) assistants requested surveys after receiving the postcard. A total of 31 completed surveys were returned to DANB from dental offices where we were trying to reach non-CDAs. Of the 31 surveys, 24 surveys were from non-CDAs; the other seven were from CDAs. An additional 265 postcards were returned due to incorrect addresses. Due to the small number of surveys from non-CDAs, the data from this small group will not be included in the overall analysis.

Tables and graphs of all demographic information are available upon request. Memoranda inviting CDAs, Program Directors, and non-CDAs to participate in Phase IV of this study can be found in Appendix B, C, and D, respectively.

#### Measurement Model Used for the Analysis

The Partial Credit Rasch Model was used to analyze the data (Andrich, 1978).

$$\log (P_{nik} / P_{ni(k-1)}) = B_n - D_i - F_k$$

where

 $P_{nik}$  = the probability that survey respondent *n*, on encountering task *i* would be observed (or would respond) in category *k*,

 $P_{ni(k-1)}$  = the probability that the observation (or response) would be in category *k*-1,

 $B_n$  = the measure of respondent *n*,

 $D_i =$  the difficulty of item *i*,

 $F_k$  = the impediment to being observed in category *k* relative to category *k-1*,

i.e., the  $k^{\prime\prime}$  step calibration, where the categories are numbered 0, m

This model allows us to transform raw scores from our survey into an equal interval scale of dental assisting tasks. The Rasch Model transforms raw scores into logits (referred to in this report as difficulty measures). Difficulty measures usually range from -4.0 to +4.0, with -4.0 representing the easiest tasks and +4.0 representing the hardest tasks.

Additionally, the Rasch Model provides us with statistics on the four categories we used to rate the 70 tasks in our survey. When using a rating scale with four categories, there are three ordered 'steps' between categories (see example below).

			0			
Category A		Category B		Category C		Category D
	Step 1		Step 2		Step 3	

Example of ordered 'steps' between rating scale categories

When using the Rasch Model the 'steps' between categories are not assumed to be equal interval units. This means that the difference between Category A and Category B is not assumed to be the same as the difference between Category B and Category C. If we used raw scores, we would assume equal interval units between all categories. The Rasch Model allows us to calculate the actual 'steps' used in our rating scale.

The Rasch Model creates a linear scale that allows us to make quantitative comparisons among respondents, tasks, and rating scale categories. Our goal in using the Rasch Model is to create a "ruler" of dental assisting levels. All respondents, dental assisting tasks, and rating scale categories can be placed on one ruler, as illustrated in the following example:



#### **RASCH ANALYSIS**

The following steps were followed in the data analysis process:

- Review the functioning of the rating scale
- Review item fit, person fit, and reliability
- Compare groups (Dentists, CDAs, Program Directors)
- Report Results

It is essential to ensure that a survey's rating scale is working properly. Conceptually, the rating scale used for the present survey appears to have a common step structure (from most basic to most complex). We must verify that respondents are using the rating scale as intended and that it is functioning properly (that is, that each category definition is understood consistently by the respondents). Table 1 below indicates that the rating scale was used properly. The respondents used all categories. In addition, because the fit statistics are around 1.0 (as is explained later) and the step calibrations increase with each category level, this indicates that the rating scale is working well (Linacre, 2002).

Cate	egory	Obser	ved	Obsvd	Sample	Infit	Outfit	Structure	Category	
Label	Score	Count	%	Avrge	Expect	MNSQ	MNSQ	Calibration	Measure	
1	1	11853	14	-2.47	-2.47	1.01	1.01	None	(-3.64)	A Entry
2	2	31672	39	74	71	.95	.94	-2.50	-1.14	B DA
3	3	24860	30	.85	.78	.94	.93	.28	1.27	C CDA/RDA
4	4	12300	15	2.22	2.29	1.10	1.11	2.22	(3.42)	d efda
MISSI	NG	1527	2	.09						

Table 1: SUMMARY OF CATEGORY STRUCTURE. Model = "R"

Next we reviewed the fit of tasks and respondents. Fit typically refers to how well the collected data match our expectations. For instance, on an examination we expect that the more able students will get harder items correct more often than less able students. Sometimes a very able student makes a careless or unexpected error on an easy item. We call this misfit. Sometimes a person of low ability guesses correctly on a hard item. We call this misfit as well. When considering the Core Competency Survey, misfit is interpreted in a somewhat different manner. Our expectation is that respondents use the category labels in a consistent manner. If an item elicits responses in an inconsistent manner it may mean that the task was not clear and/or meant something different to different participants in the survey.

Fit values ranging from 0.6 to 1.4 logits have been recommended as measures of good fit (Wright & Linacre, 1994). With the present survey we took a slightly more conservative approach, using a range of 0.7 to 1.3 logits to demonstrate fit.

Eight (8) tasks were removed from the analysis because of misfit. The 8 tasks are listed in Table 2 below.

Task #	Task Description
1	Perform mouth mirror inspection of the oral cavity
3	Phone in prescriptions at the direction of the dentist
5	Complete laboratory authorization forms
7	Perform routine maintenance of dental equipment
10	Apply effective communication techniques with a variety of patients
12	Place amalgam for condensation by the dentist
60	Maintain emergency kit
67	Respond to basic medical emergencies

Table 2.	Misfitting	Tasks
Table 2.	winsmitting	rasks

The person reliability measure was .96. This measure is analogous to Cronbach's alpha (an accepted measure of reliability). The task reliability measure was 1.0, which is an estimate of the reproducibility of task placement along the construct of dental assisting tasks. These high reliability measures indicate that the tasks used on the survey created a construct of dental assisting tasks that is reproducible, with the tasks spread out and the respondents separated along the construct.

After ensuring the rating scale was working properly and misfitting items and respondents were removed, we compared results from our three groups of survey respondents. An analysis was run separately for each group anchoring the rating scale calibrations.

We found six tasks that differed with statistical significance between CDAs and dentists. The tasks are listed in Table 3 below.

Task #	Task Name	CDA Measure	DDS Measure	Logit Difference
8	Monitor and respond to post-	0.66	1.31	-0.65
	surgical bleeding			
13	Remove sutures	0.94	0.37	0.57
46	Take final impressions	1.91	2.44	-0.53
65	Recognize basic medical	-0.93	-0.22	-0.71
	emergencies			
68	Respond to basic dental	-0.31	0.39	-0.70
	emergencies			
70	Place stainless steel crowns	2.00	2.96	-0.96

Table 3: Task Measures That Significantly Differ Between CDAs and Dentists

Five of the six tasks were rated more basic by CDAs than dentists, while only one task was rated more complex by CDAs than dentists (task shaded in Table 3). Three of the tasks that dentists rated as requiring more education/training than CDAs did have to do with medical and/or dental emergencies (including post-surgical bleeding). The dentists may have rated these tasks as more complex because they are ultimately responsible for their patients, they spent more time in their schooling training in these

areas, and the incorrect performance of these tasks could have dire consequences for their patients. The remaining two tasks of the five that CDAs rated as more basic than dentists did are (46) Take final impressions and (70) Place stainless steel crowns. Dentists may have rated these as more complex because they consider these tasks to be relatively permanent procedures that impact final treatment outcome.

Analysis was conducted to identify the above items and to determine if the differences noted above will interfere with the development of our scale of complexity of dental assisting tasks. Based on the comparison of person measures with and without the identified items, it was determined that the differences will not interfere with scale development.

We found 10 items that differed significantly between CDAs and Program Directors (PDs). These items are listed in Table 4 below.

Task #	Task Name	CDA Measure	PD Measure	Logit Difference
9	Perform coronal polishing	0.90	1.41	-0.51
	procedures			
17	Identify features of rotary	-1.18	-1.81	0.63
	instruments			
18	Apply topical fluoride	-1.49	-0.15	-1.34
19	Select and manipulate	-0.62	-1.29	0.67
	gypsums and waxes			
22	Expose radiographs	-0.48	0.27	-0.75
23	Evaluate radiographs for	1.19	0.67	0.52
	diagnostic quality			
35	Place periodontal dressings	1.74	1.13	0.61
46	Take final impressions	1.91	2.81	-0.90
51	Carve amalgams	3.02	4.08	-1.06
56	Apply topical anesthetic to	-1.63	-0.86	-0.77
	the injection site			

Six of the tasks were rated more basic by CDAs than Program Directors, while four tasks rated more complex by CDAs than Program Directors (tasks shaded in Table 4). The six tasks rated as requiring more education/training by Program Directors are all dental assisting functions that are regulated by most states. Program Directors may be more aware of state law and requirements than CDAs. If true, this factor may have had an effect on their ratings.

Four of the five items rated as more complex by CDAs are included in the curriculum of ADA-accredited schools. Because the Program Directors know the information is being taught, they may view this information as relatively basic or straightforward. CDAs, not all of whom have graduated from an ADA-accredited dental assisting program, may not have received instruction in these tasks or may find it difficult to apply their knowledge in actual practice.

The only item rated more complex by CDAs than Program Directors that does not fit these patterns is (35) Place periodontal dressings. This is considered an expanded function in some states. The Program Directors may view it as a relatively basic function, while the CDAs, in practice, may not be allowed by law to perform it in their state, or may find it relatively difficult to accomplish if they are allowed to perform it.

Analysis was conducted to identify the above items and to determine if the differences noted above will interfere with the development of our scale of dental assisting tasks. Based on the comparison of person measures with and without the identified items, it was determined that the differences will not interfere with scale development.

We found 22 tasks that differed significantly between dentists and Program Directors. The tasks are listed in Table 5 below.

Task #	Task Namo	Dontist		Logit Difference
1 ask #	Task Name	Moasuro	I D Measure	Lugit Difference
	Passive and prepare patients for	E 49	1 6 1	0.94
4	treatment including secting	-3.40	-4.04	-0.64
	reatment, including seating,			
6		1.20	1 70	0.52
6	Place and remove retraction cord	1.26	1./8	-0.52
8	Monitor and respond to post-surgical bleeding	1.31	0.56	0.75
9	Perform coronal polishing procedures	0.63	1.41	-0.78
17	Identify features of rotary instruments	-1.18	-1.81	0.63
18	Apply topical fluoride	-1.63	-0.15	-1.50
19	Select and manipulate gypsums and	-0.65	-1.29	0.64
	waxes			
22	Expose radiographs	-0.70	0.27	-0.97
25	Perform sterilization and disinfection	-2.38	-1.75	-0.63
	procedures			
26	Provide pre- and post-operative	-1.71	-1.19	-0.52
	instructions			
31	Identify intraoral anatomy	0.28	-0.60	0.88
35	Place periodontal dressings	1.75	1.13	0.62
37	Take and record vital signs	-0.98	-1.67	0.69
38	Monitor vital signs	-0.35	-0.98	0.63
39	Clean and polish removable appliances	-1.52	-0.98	-0.54
	and prostheses			
43	Size and fit stainless steel crowns	1.99	1.25	0.74
51	Carve amalgams	3.07	4.08	-1.00
55	Remove temporary fillings	1.98	1.34	0.64
56	Apply topical anesthetic to the	-1.76	-0.86	-0.90
	injection site			
65	Recognize basic medical emergencies	-0.22	-0.81	0.59
68	Respond to basic dental emergencies	0.39	-0.29	0.68
70	Place stainless steel crowns	2.96	1.73	1.23

 Table 5: Task Measures That Significantly Differ Between Dentists and PDs

Ten of the tasks were rated more basic by dentists than Program Directors, while twelve tasks were rated more complex by dentists than Program Directors (tasks shaded in Table 5). Five of the 12 tasks rated more complex by dentists relate in some way to managing or preventing emergencies: (8) Monitor and respond to post-surgical bleeding; (37) Take and record vital signs; (38) Monitor vital signs; (65) Recognize basic medical emergencies; and (68) Respond to basic medical emergencies. We speculate that the reason that dentists rated these as more complex for assistants than the Program Directors did may be because if an assistant incorrectly performed these tasks, this performance could result in dire consequences for the patient.

Four of these 12 tasks rated as more complex by dentists than Program Directors are considered expanded functions in some states. It is hard to say whether some dentists may view these as being more complicated because of this, or if it is harder to perform them than it is to teach dental assistants how to perform them. They are: (35) Place periodontal dressings; (43) Size and fit stainless steel crowns; (55) Remove temporary fillings; and (70) Place stainless steel crowns.

One of these 12 tasks – (31) Identify intraoral anatomy – is likely to be considered more complex by dentists than by Program Directors because the vast majority of dental assistants employed nationwide are on-the-job trained. Most of them have not studied intraoral anatomy, so this could be why the dentists perceive this task as more complex for the majority of their (OJT) assistants. In contrast, the Program Directors provide formal education to assistants, and may therefore view the identification of intraoral anatomy as less complex than the dentists do, who are interacting primarily with OJT assistants.

We have no explanation for why dentists rated the last two of these 12 tasks – (17) Identify features of rotary instruments and (19) Select and manipulate gypsums and waxes – as more complex than the Program Directors did.

In contrast, 10 of the 22 tasks rated significantly differently by dentists and Program Directors, are rated more complex by Program Directors than by Dentists.

Six of the 10 tasks rated as more complex by Program Directors than by dentists are considered expanded functions in some states. It is hard to say whether some Program Directors view these as being more complicated because of this, or if it is harder to teach dental assistants to perform these tasks than it is actually to perform them in practice. They are: (6) Place and remove retraction cord; (9) Perform coronal polishing procedures; (18) Apply topical fluoride; (22) Expose radiographs; (51) Carve amalgams; and (56) Apply topical anesthetic to the injection site. One task – (25) Perform sterilization and disinfection procedures – might be considered more complex by Program Directors than dentists because the Program Directors may be considering all the microbiological knowledge behind this task that they must impart, while the dentists may only be considering how to operate sterilization machines (autoclave, chemclave) or how to apply disinfectant solution.

One task – (26) Provide pre- and post-operative instructions – might be considered more complex by Program Directors than dentists because the Program Directors may be considering all the wide variety of instructions that might need to be given to various patients pre- and post-operatively, while the dentists may only allow their assistants to provide these instructions in very limited situations.

We have no explanation for why Program Directors rated the last two of these 10 tasks – (4) Receive and prepare patients for treatment and (39) Clean and polish removable appliances and prostheses – as more complex than the dentists did.

Analysis was conducted to identify the above items and to determine if the differences noted above will interfere with the development of our scale of dental assisting tasks. Based on the comparison of person measures with and without the identified items, it was determined that the differences will not interfere with scale development.

The largest differences between groups appeared when comparing the results of Program Directors with results from both CDA and dentist respondents. This could be occurring for several reasons. Not all CDAs have graduated from ADA-accredited dental assisting programs; many CDAs have been trained on-the-job. There may be some tasks that are easy to master in a classroom, but difficult to perform in the field. Also, there may be some areas that are difficult to master in a classroom but are quickly learned in a dental office.

While there were differences noted between all combinations of the three groups, the differences were determined not to compromise respondent measure interpretation. <u>*It is interesting to note that while differences did exist, the direction of task difficulties were the same for all three groups.* This is displayed in the following three graphs (Figures 1a - 1c).</u>







Figure 1b: Core Competency Ratings Tasks 27 - 47



Figure 1c: Core Competency Ratings Tasks 48 - 70

#### Final Results\Discussion

As a whole, our results indicate there are two main levels of dental assisting (Category B, or the DA level, and Category C, or the CDA/RDA level), along with a corresponding subset of specialized functions. The results from the Core Competency Survey indicate that only two functions – (4) Receive and prepare patients for treatment and (41) Prepare procedural trays/armamentaria set-ups – should be classified as Category A (most basic tasks – no minimum experience, training, education or competency assessment should be required).

Approximately half of the tasks (33 of the 62 tasks after misfitting items were removed) are classified as Category B (low to moderate complexity – requiring less than 2 years full-time or 4 years part-time dental assisting work experience OR up to 12 months of formal education or training). For tasks in this category, the research supports the contention that a credential less than the full CDA be recommended to perform these tasks. Passing DANB's RHS and ICE exams, and a state-specific jurisprudence exam or state-specific exams on a few of these functions, currently considered to be 'expanded' duties in some states, may fulfill the requirements for this category.

Approximately one third of the tasks (23 of the 62 tasks after misfitting items were removed) are classified as Category C (moderate complexity – requiring 2+ years of full-time or 4+ years of part-time dental assisting work experience OR at least 12 months of formal education or training). For tasks in this category, these results support the contention that successful performance on DANB's CDA exam (comprised of three component exams, Radiation Health & Safety, Infection Control and General Chairside Assisting) be recommended before performing these tasks. In lieu of the CDA exam, a state might opt to require a state-specific RDA exam, which could meet public protection needs as long as it were developed and administered in accordance with nationally accepted psychometric methods, principles, and standards.

Four tasks are classified as Category D (most complex – specific advanced education or training required). For tasks in this category, the research results would support advanced competency testing to evaluate an assistant's ability to perform these four expanded functions. Table 6 (on the following page) shows the complete list of tasks and the category into which each one falls.

Survey		Difficulty	-
Task #	Task Name	Measure	Category
22	Place, cure and finish composite resin	3 40	П
55	restorations	3.40	
20	Carve amaigams	2.76	
70	Place stainless staal groups	2.70	
70		2.33	
46	Take final impressions	2.18	C
55	Remove temporary fillings	1.81	C
34	Place liners and bases	1.73	C
29	Size and place orthodontic bands and brackets	1./2	C
35	Place periodontal dressings	1.69	C
43	Size and fit stainless steel crowns	1.66	C
4/	Fabricate and place temporary crowns	1.46	C
6	Place and remove retraction cord	1.45	C
15	Tie in archwires	1.31	C
50	Place temporary fillings	1.21	C
59	Monitor nitrous oxide/oxygen analgesia	1.20	C
40	Apply pit and fissure sealants	1.17	C
23	Evaluate radiographs for diagnostic quality	1.10	C
49	Perform vitality tests	0.94	C
14	Dry canals	0.92	C
8	Monitor and respond to post-surgical bleeding	0.90	C
9	Perform coronal polishing procedures	0.84	C
61	surfaces	0.78	С
63	Place post-extraction dressings	0.73	С
13	Remove sutures	0.69	С
42	Place orthodontic separators	0.54	С
45	Place and remove matrix bands	0.54	С
62	Remove periodontal dressings	0.52	С
69	Remove post-extraction dressings	0.27	В
54	Remove temporary crowns and cements	0.26	В
27	Place and remove dental dam	0.23	В
31	Identify intraoral anatomy	-0.03	В
68	Respond to basic dental emergencies	-0.04	В
	Fabricate custom trays, to include impression		
64	and bleaching trays, and athletic mouthguards	-0.05	В
	Using the concepts of four-handed dentistry,		
	including extractions, periodontics,		
58	endodontics, and implants	-0.12	В
22	Expose radiographs	-0.50	В
28	Pour, trim, and evaluate the quality of diagnostic casts	-0.50	В
38	Monitor vital signs	-0.62	B
50	Using the concepts of four-handed dentistry.	0.02	
	assist with basic restorative procedures,		
30	including prosthodontics and restorative	-0.64	B
65	Recognize hasic medical emergencies	-0.65	B
44	Take preliminary impressions	-0.68	B
		0.00	

Table 6: Tasks Ordered from Most Basic to Most Complex

### Table 6: Continued

19	Select and manipulate gypsums and waxes	-0.69	В
66	Recognize basic dental emergencies	-0.80	В
2	Chart existing restorations or conditions	-1.03	В
36	Demonstrate understanding of the OSHA Bloodborne Pathogens Standard	-1.10	В
24	Provide patient preventive education and oral hygiene instruction	-1.18	В
37	Take and record vital signs	-1.18	В
16	Demonstrate knowledge of ethics/jurisprudence/patient confidentiality Maintain field of operation during dental	-1.22	В
48	procedures through the use of retraction, suction, irrigation, drying, placing and removing cotton rolls, etc.	-1.22	В
17	Identify features of rotary instruments	-1.24	В
32	Demonstrate understanding of the OSHA Hazard Communication Standard	-1.30	В
39	Clean and polish removable appliances and prostheses	-1.35	В
57	Demonstrate understanding of the Centers for Disease Control and Prevention Guidelines	-1.38	В
18	Apply topical fluoride	-1.41	В
26	Provide pre- and post-operative instructions	-1.46	В
21	Mix dental materials	-1.50	В
56	Apply topical anesthetic to the injection site	-1.60	В
53	Mount and label dental radiographs	-1.83	В
11	Transfer dental instruments	-2.09	В
25	Perform sterilization and disinfection procedures	-2.12	В
52	Process dental radiographs	-2.23	В
41	Prepare procedural trays/armamentaria set-ups	-2.54	А
4	Receive and prepare patients for treatment, including seating, positioning chair, and placing napkin	-5.14	А

### COMMENTS

Many of our participants provided comments both positive and negative on their surveys. A copy of all comments is available upon request.

### **FUTURE DIRECTIONS**

DANB and ADAA are now developing a 'white paper' (position paper) defining core competencies for dental assistants and recommending minimum requirements for performing these competencies, to be provided to these audiences:

- 1. State boards of dentistry, state dental associations, organized dentistry (i.e., American Dental Assistants Association state and local organizations, American Dental Association, American Dental Education Association, Academy of General Dentistry, American Association of Oral and Maxillofacial Surgery, American Association of Orthodontists, etc.), dentalrelated corporations, ADA-accredited dental schools and dental assisting programs, other (non-ADA-accredited) dental assisting programs, high school tech-prep coordinators/work force educators, and other groups as appropriate.
- 2. And, on request, to members of the oral healthcare team (specifically dentists), high school career counselors, and consumers.

Both organizations plan to create a Communications Plan to provide information to oral healthcare stakeholders on the levels of Dental Assisting Core Competencies and minimum dental assisting education and credentials recommended by this research. This Communications Plan could include these elements:

- Creating a booklet based on these results to provide as a set of guidelines to those interested in developing a systematic in-office training protocol for dental assistants
- Developing an Executive Summary and providing either the white paper/position paper or Executive Summary (or both) to media outlets and oral healthcare stakeholders as described in the 'potential audiences' portion of the ADAA/DANB Alliance's prior work
- Submitting for publication to national oral healthcare organizations, including American Dental Association, American Dental Education Association, and Academy of General Dentistry all phases of this Core Competencies research in research paper format
- Developing and distributing press releases, public service announcements, etc. as appropriate and cost-feasible

Ultimately, the results of this research can be used for many purposes, including but not limited to the following:

- Defining and reinforcing the concept of a viable career ladder for dental assistants, thereby enhancing recruitment and increasing retention of these oral healthcare professionals
- Providing an empirically based mechanism for state oral healthcare regulatory bodies to use in defining the practice of dental assisting

Providing a uniform view of the dental assisting profession, to aid in the development of a standardized professional model to define dental assisting. Standardization will further the goal of a more uniform national standard of care and assist each state dental board in making decisions regarding the potential expansion of dental assisting duties in order to address the 'access to care' issue put forth by the U.S. Surgeon General David Satcher, MD, PhD, in his report, *Oral Health in America: A Report of the Surgeon General* (May 2000).

For more information, including demographic information and respondent comments, contact

Elizabeth A. Koch, MS, MPH Director, Testing and Measurement DANB 676 N. St. Clair, Suite 1880 Chicago, IL 60611 1-800-FOR-DANB, ext. 414 research@danb.org.

#### References

Andrich, D. (1978). A rating formulation for ordered response categories. *Psychometrika, 43*, 561-573.

Linacre, JM (2002). Optimizing Rating Scale Category Effectiveness. *Journal of Applied Measurement, 3(1),* 85-106.

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Phase III of the Core Competencies Study Survey Materials Sent to Dentists November 2003

#### MEMORANDUM

November 18,	2003
TO:	Selected ADA Members Interested in the Future of the Dental Team
FROM:	Cynthia C. Durley, MEd, MBA Executive Director
RE:	Survey of Dental Assisting Core Competencies

#### Your opinion counts.

To address the current and projected shortage of dental assistants, the retention of existing dental assistants, and access to oral health care issues, the Dental Assisting National Board, Inc. (DANB) and the American Dental Assistants Association (ADAA) Ad Hoc Committee to Enhance the Dental Assisting Profession is working to further define and rank core dental assisting competencies through the enclosed survey.

#### You have a voice.

The results of this survey will help the ADAA/DANB Ad Hoc Committee to identify and rank dental assisting tasks from most basic to most complex, serving as the basis for the development of a viable career path for dental assistants – a career path that may bring more individuals into the field, reduce turnover, and encourage career development for current assistants.

Your participation in this survey is not an endorsement of licensure, mandatory education or training, or recommendations to change current state dental practice acts or regulations. This is simply a research project whereby the results are anticipated to benefit the entire dental community, promote quality patient care, and support patient accessibility to quality care. If you choose, you may remain anonymous.

#### Your input is invaluable.

Please read the instructions, complete the survey, and return it in the enclosed postage paid envelope by 12/31/03. We look forward to your response.

#### Questions or comments?

Call Liz Koch, DANB's Director, Testing and Measurement at 1-800-FOR-DANB, extension 114 or email research@danb.org.

Thank you for your participation.

#### Turn over for survey instructions

## **Core Competencies: Survey Directions**

Seventy dental assisting tasks or functions are listed randomly below. Please consider each task separately. Rate the **task** in terms of its level of complexity as it relates to the experience, training, and/or education you believe a dental assistant should possess in order to be allowed to perform it. Category A tasks would be considered most basic (least complex), requiring little or no training or education beyond a brief orientation to the task. Category D tasks would be considered most complex, requiring extensive experience, training, or even some formal courses in order to be able to competently perform the task.

Use the following definitions to guide your responses. (Note that 'OJT' refers to an on-the-job-trained dental assistant.)

#### Category A

These are the most basic dental assisting tasks; No minimum experience, training, or education should be required to perform the task (though the task may require a short orientation in order to perform it); that is, in order to perform a Category A task, the assistant needs only to be provided with short, one-time verbal instructions or read a short instruction sheet.

#### <u>Category B</u>

These tasks are of low to moderate complexity, requiring less than 2 years full time or up to 4 years part time dental assisting work experience OR up to 12 months of formal education or training in order to perform this task. Tasks in Category B are appropriate for relatively new OJTs and students currently enrolled in a formal dental assisting education program.

#### <u>Category C</u>

These tasks are of moderate complexity, requiring 2+ years of full time or 4+ years of part time work experience (or some combination of full and part time experience) OR at least 12 months of formal education or training. (Tasks in Category C are appropriate for dental assistants who have completed a formal dental assisting education program or who are highly experienced OJTs.)

#### <u>Category D</u>

These tasks are most complex. In order to perform Category D tasks, the dental assistant would require specific, advanced education or training in addition to or beyond the level required for Category C tasks.

As you rank these tasks, please keep in mind the following:

- Patient safety is of utmost importance.
- Category A tasks are those that would not be likely to cause harm to a patient if performed by an untrained, inexperienced assistant.
- In contrast, those tasks at the Category D level are those that you believe require the most advanced education, training and/or experience, since a patient could be harmed if the task were performed by an untrained, inexperienced assistant.
- Do not consider what you do or are permitted to do in your office or state. Instead, think of this as an opportunity to define and rank dental assisting tasks that could be applied across the country. Do not respond to 'what is.' Respond instead to 'what should be.'

Levels for Dental Assistants	(	Category			
<sup>2</sup> age 1	A	В	C	D	
1. Perform mouth mirror inspection of the oral cavity	$C_{\mu\nu}$	$\odot$	0	C	
2. Chart existing restorations or conditions	0	0	0	ς	
3. Phone in prescriptions at the direction of the dentist	40 A	0	O	¢	
<ol> <li>Receive and prepare patients for treatment, including seating, positioning chair, and placing napkin</li> </ol>	Ċ	0	0		
5. Complete laboratory authorization forms	0	$\langle \cdot \rangle$	$\bigcirc$	<	
5. Place and remove retraction cord	0	0	0	C	
7. Perform routine maintenance of dental equipment	1. I	5	0	C	
3. Monitor and respond to post-surgical bleeding	<u> </u>	0	0	C	
9. Perform coronal polishing procedures	Ŷ.	ं	O	C	
0. Apply effective communication techniques with a variety of patients	: : :	0	0	C	
11. Transfer dental instruments	<i>1</i>	0	$\odot$	C	
2. Place amalgam for condensation by the dentist	( o	0	0	C	
3. Remove sutures		0	0	С	
14. Dry canals	()	0	0	C	
15. Tie in archwires	0	C	0		
16. Demonstrate knowledge of ethics/jurisprudence/patient confidentiality	0	0	0	C	
17. Identify features of rotary instruments	22	0	0	C	
18. Apply topical fluoride	0	$\odot$	0	C	

Survey: Core Competencies and Minimum Proficiency Levels for Dental Assistants	c	atego	ory	
Page 2	Α	В	С	
19. Select and manipulate gypsums and waxes	0	0	0	
20. Perform supragingival scaling	0	0	0	
21. Mix dental materials	- - -	С	0	
22. Expose radiographs	0	0	0	
23. Evaluate radiographs for diagnostic quality	0	0	0	
24. Provide patient preventive education and oral hygiene instruction	0	0	0	
25. Perform sterilization and disinfection procedures	0	0	0	
26. Provide pre- and post-operative instructions	0	0	0	
27. Place and remove dental dam	0	0	0	
28. Pour, trim, and evaluate the quality of diagnostic casts	0	0	0	
29. Size and place orthodontic bands and brackets	0	0	0	
30. Using the concepts of four-handed dentistry, assist with basic restorative procedures, including prosthodontics and restorative dentistry	0	0	0	
31. Identify intraoral anatomy	0	0	0	
32. Demonstrate understanding of the OSHA Hazard Communication Standard	0	0	0	
33. Place, cure and finish composite resin restorations	0	0	0	-
34. Place liners and bases	0	0	0	
35. Place periodontal dressings	0	0	0	
36. Demonstrate understanding of the OSHA Bloodborne Pathogens Standard	0	0	0	

Levels for Dental Assistants		C	atego	ory	
Page 3		A	В	С	
37. Take and record vital signs		0	$\bigcirc$	0	
38. Monitor vital signs		 0	0	0	
39. Clean and polish removable appliances and prostheses			0	C	
40. Apply pit and fissure sealants	(	0	0	0	B
41. Prepare procedural trays/armamentaria set-ups		0	0	0	
42. Place orthodontic separators	(	$\bigcirc$	0	0	
43. Size and fit stainless steel crowns	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· ;;	0	C	
44. Take preliminary impressions		0	0	0	
45. Place and remove matrix bands		0	C	0	
46. Take final impressions		0	0	0	
47. Fabricate and place temporary crowns			0	0	
48. Maintain field of operation during dental procedures through the use of retraction, suction, irrigation, drying, placing and removing cotton rolls, etc.	. /	0	0	0	
49. Perform vitality tests		0	0	O	
50. Place temporary fillings	,	/**** 1414	0	0	
51. Carve amalgams			0	0	
52. Process dental radiographs		0	0	0	
53. Mount and label dental radiographs			0	:	
54. Remove temporary crowns and cements		0	0	0	

r

Survey: Core Competencies and Minimum Proticiency Levels for Dental Assistants		Categ	ory	
Page 4	A	в	С	
55. Remove temporary fillings	0	0	0	
56. Apply topical anesthetic to the injection site	0	0	0	-
57. Demonstrate understanding of the Centers for Disease Control and Prevention Guidelines	C	0	0	
58. Using the concepts of four-handed dentistry, assist with basic intraoral surgical procedures, including extractions, periodontics, endodontics, and implants	0	0	0	
59. Monitor nitrous oxide/oxygen analgesia	0	0	0	
60. Maintain emergency kit	0	0	0	
61. Remove permanent cement from supragingival surfaces	0	0	0	
62. Remove periodontal dressings	0	0	0	
63. Place post-extraction dressings	0	0	0	
64. Fabricate custom trays, to include impression and bleaching trays, and athletic mouthguards	0	0	0	
65. Recognize basic medical emergencies	0	0	0	
66. Recognize basic dental emergencies	0	0	0	
67. Respond to basic medical emergencies	 	0	0	-
68. Respond to basic dental emergencies	0	0	0	
69. Remove post-extraction dressings	0	0	0	
70. Place stainless steel crowns	0	0	0	
	. 0	0	0	
	: 0	0	0	

## **Core Competencies: Demographic Information**

In order to make best use of the data we are collecting during this project, please complete the following information and submit with your survey questionnaires.

- 1. Please tell us about your practice. I would best describe my practice setting as:
  - Private Practice
     Clinic/HMO

     Hospital
     Military

     State/Municipal Health Dept
     Prison

     Other (Please Explain:\_\_\_\_\_)
- 2. Please mark the primary type of dentistry you practice?

 General Dentistry	 Endodontic
 Orthodontic	 Oral Surgery
 Pediatrics	 Periodontic

3. How long have you been practicing dentistry?

- \_\_\_\_ Less than One Year
- \_\_\_\_ One or Two Years
- \_\_\_\_\_ Three to Five Years
- \_\_\_\_ Five to Ten Years
- \_\_\_\_ Over Ten Years

4. How many dentists work for your practice?

5. How many dental assistants work for your practice?

6. How many dental hygienists work for your practice?\_\_\_\_\_

7. In which state is your practice located?

8. If you are interested in receiving an Executive Summary of these results, please include your name and street or e-mail address below (please print or type):

Name			_
Street	City	State Zip	_
e-mail address			_
Please list any comments below.			

Thank you for your participation! Your responses are very important.

Phase IV of the Core Competencies Study Survey Materials Sent to CDAs December 2004

#### MEMORANDUM

December 17, 2004

TO: Selected CDAs and other dental assistants
FROM: Cynthia C. Durley, MEd, MBA Executive Director
RE: Survey of Dental Assisting Core Competencies

# We need your help to develop a career ladder of national core competencies for dental assistants!

In 2000, the Dental Assisting National Board, Inc. (DANB) and the American Dental Assistants Association (ADAA) formed a joint committee, the ADAA/DANB Alliance (formerly the ADAA/DANB Ad Hoc Committee to Enhance the Dental Assisting Profession). This committee has met twice a year since its inception. It has been addressing many issues of interest to the dental assisting profession, primarily to develop a ranking of core competencies for dental assistants from most basic (entry level), to most complex (the expanded functions level).

Why? The United States is becoming a more mobile society. Many states are moving toward recognizing professional credentials earned in other states (known as 'reciprocity,' or 'licensure by credentials'). Currently, there are no national mandatory education or credentialing requirements for dental assistants - every state has its own dental practice act, with its own requirements for dental assistants, which allows assistants to perform various duties within that state. Currently, 36 states recognize or require dental assistants to pass a DANB examination. However, dental assisting functions allowed in each state and requirements to perform these functions may vary greatly.

The ADAA/DANB Alliance is working to define and rank core dental assisting competencies with the hope of supporting one national set of dental assisting tasks, levels, and requirements, and reinforcing the notion of a viable career ladder for dental assistants. State boards of dentistry often contact DANB for such information as they update their state dental practice acts. Your work on this survey will help us to provide important input to the state dental boards, which could ultimately serve to set national dental assisting standards and help to elevate the dental assisting profession.

You have been randomly selected to help the committee with this, the final phases of the survey. Due to the nature of random sampling, some of you may have participated in phases I or II of this study. If that is the case, kindly accept our invitation to participate for a second time. Please read the enclosed instructions to complete the survey. Return it to Chris McManus, DANB Research Coordinator, in the enclosed postage paid envelope by January 15<sup>th</sup>, 2005. Any questions? Call me at 1-800-FOR-DANB, extension 428, or Chris at extension 444. Thank you for your input.

Turn over for survey instructions

### **Core Competencies: Survey Directions**

Seventy dental assisting tasks or functions are listed randomly below. Please consider each task separately. Rate the **task** in terms of its level of complexity as it relates to the experience, training, and/or education you believe a dental assistant should possess in order to be allowed to perform it. Category A tasks would be considered most basic (least complex), requiring little or no training or education beyond a brief orientation to the task. Category D tasks would be considered most complex, requiring extensive experience, training, or even some formal courses in order to be able to competently perform the task.

Use the following definitions to guide your responses. (Note that 'OJT' refers to an on-the-job-trained dental assistant.)

#### Category A

These are the most basic dental assisting tasks; No minimum experience, training, or education should be required to perform the task (though the task may require a short orientation in order to perform it); that is, in order to perform a Category A task, the assistant needs only to be provided with short, one-time verbal instructions or read a short instruction sheet.

#### <u>Category B</u>

These tasks are of low to moderate complexity, requiring less than 2 years full time or up to 4 years part time dental assisting work experience OR up to 12 months of formal education or training in order to perform this task. Tasks in Category B are appropriate for relatively new OJTs and students currently enrolled in a formal dental assisting education program.

#### Category C

These tasks are of moderate complexity, requiring 2+ years of full time or 4+ years of part time work experience (or some combination of full and part time experience) OR at least 12 months of formal education or training. (Tasks in Category C are appropriate for dental assistants who have completed a formal dental assisting education program or who are highly experienced OJTs.)

#### <u>Category D</u>

These tasks are most complex. In order to perform Category D tasks, the dental assistant would require specific, advanced education or training in addition to or beyond the level required for Category C tasks.

As you rank these tasks, please keep in mind the following:

- Patient safety is of utmost importance.
- Category A tasks are those that would not be likely to cause harm to a patient if performed by an untrained, inexperienced assistant.
- In contrast, those tasks at the Category D level are those that you believe require the most advanced education, training and/or experience, since a patient could be harmed if an untrained, inexperienced assistant performed the task.
- Do not consider what you do or are permitted to do in your office or state. Instead, think of this as an opportunity to define and rank dental assisting tasks that could be applied across the country. Do not respond to 'what is.' Respond instead to 'what should be.'

After we tally all responses, we will compare responses to the prior phases and work to define recommended minimum dental assisting education and examination requirements to perform each level of dental assisting task. If you are interested in receiving an Executive Summary of these results, please include your name and street or e-mail address below (please print or type):

Name:			
Address:			
City	State	Zip	
Email:			

Levels for Dental Assistants		Categ	ory	
Page 1	A	В	С	D
1. Perform mouth mirror inspection of the oral cavity	Ç,	¢	0	C
2. Chart existing restorations or conditions	0	C	0	<
3. Phone in prescriptions at the direction of the dentist	Ó	0	0	¢
<ol> <li>Receive and prepare patients for treatment, including seating, positioning chair, and placing napkin</li> </ol>	0	0	0	0
5. Complete laboratory authorization forms	0	< D	Ο	<
6. Place and remove retraction cord	0	0	0	C
7. Perform routine maintenance of dental equipment	C.4	\$22	0	<
8. Monitor and respond to post-surgical bleeding	, e	0	0	C
9. Perform coronal polishing procedures	N.	ं	O	C
10. Apply effective communication techniques with a variety of patients	: o	0	0	C
11. Transfer dental instruments	2	0	(	C
12. Place amalgam for condensation by the dentist	0	0	0	С
13. Remove sutures	-	0	0	C
14. Dry canals	()	0	0	C
15. Tie in archwires	0	0	0	C
16. Demonstrate knowledge of ethics/jurisprudence/patient confidentiality	0	0	0	C
17. Identify features of rotary instruments	22	0	0	C
18. Apply topical fluoride	0	$\bigcirc$	0	C

Survey: Core Competencies and Minimum Proficiency Levels for Dental Assistants	c	atego	ory	
Page 2	A	В	С	
19. Select and manipulate gypsums and waxes	0	0	0	
20. Perform supragingival scaling	0	0	0	
21. Mix dental materials		С	0	
22. Expose radiographs	0	0	0	
23. Evaluate radiographs for diagnostic quality	0	0	0	
24. Provide patient preventive education and oral hygiene instruction	0	0	0	
25. Perform sterilization and disinfection procedures	0	0	0	
26. Provide pre- and post-operative instructions	0	0	0	
27. Place and remove dental dam	0	0	0	
28. Pour, trim, and evaluate the quality of diagnostic casts	0	0	0	
29. Size and place orthodontic bands and brackets	O	0	0	
30. Using the concepts of four-handed dentistry, assist with basic restorative procedures, including prosthodontics and restorative dentistry	0	0	0	
31. Identify intraoral anatomy	0	0	0	
32. Demonstrate understanding of the OSHA Hazard Communication Standard	0	0	0	
33. Place, cure and finish composite resin restorations	0	0	0	-
34. Place liners and bases	0	0	0	
35. Place periodontal dressings	0	0	0	
36. Demonstrate understanding of the OSHA Bloodborne Pathogens Standard	0	0	0	

Survey: Core Competencies and Minimum Proficiency Levels for Dental Assistants		Categ	ory	
Page 3	A	В	С	
37. Take and record vital signs	0	¢	0	
38. Monitor vital signs		0	0	
39. Clean and polish removable appliances and prostheses	<u>ري</u> د	0	C	
40. Apply pit and fissure sealants	0	0	0	(
41. Prepare procedural trays/armamentaria set-ups	÷	0	0	
42. Place orthodontic separators	Ó	0	0	
43. Size and fit stainless steel crowns	(3	Ø	C	
44. Take preliminary impressions	: o	C	0	
45. Place and remove matrix bands		0	0	
46. Take final impressions	o	0	0	
47. Fabricate and place temporary crowns	-12	0	O	
48. Maintain field of operation during dental procedures through the use of retraction, suction, irrigation, drying, placing and removing cotton rolls, etc.	. 0	0	0	(
49. Perform vitality tests	0	Q	O	,
50. Place temporary fillings	0	0	0	1
51. Carve amalgams	0	0	0	
52. Process dental radiographs	0	0	0	
53. Mount and label dental radiographs		0		
54. Remove temporary crowns and cements	- -	C	0	

Survey: Core Competencies and Minimum Proficiency Levels for Dental Assistants	Categor				
Page 4	A	в	С		
55. Remove temporary fillings	0	0	0		
56. Apply topical anesthetic to the injection site	0	0	0		
57. Demonstrate understanding of the Centers for Disease Control and Prevention Guidelines	Ċ.	0	0		
58. Using the concepts of four-handed dentistry, assist with basic intraoral surgical procedures, including extractions, periodontics, endodontics, and implants	0	0	0		
59. Monitor nitrous oxide/oxygen analgesia	0	0	0		
60. Maintain emergency kit	0	0	0		
61. Remove permanent cement from supragingival surfaces	0	0	0		
62. Remove periodontal dressings	0	0	0	-	
63. Place post-extraction dressings	0	0	0		
64. Fabricate custom trays, to include impression and bleaching trays, and athletic mouthguards	0	0	0		
65. Recognize basic medical emergencies	0	0	0		
66. Recognize basic dental emergencies	0	0	0		
67. Respond to basic medical emergencies	0	0	0		
68. Respond to basic dental emergencies	0	0	0		
69. Remove post-extraction dressings	0	0	0		
70. Place stainless steel crowns	0	0	0		
	. 0	0	0		
	: 0	0	0	-	

## **Core Competencies: Demographic Information**

In order to make best use of the data we are collecting during this project, please complete the following information and submit with your survey questionnaires.

1. Are you a Certified Dental Assistant?  $\Rightarrow$  Yes  $\Rightarrow$  No

If yes to #1, please provide your 6 digit Certification Number (located on your DANB wallet card or certificate)

2. Please tell us about your practice. I would best describe my practice setting as:

 Private Practice	 Clinic/HMO
 Hospital	 Military
 State/Municipal Health Dept	 Prison
 University/College	

- 3. What type of practice do you work for?
  - \_\_\_\_\_ General Dentistry
     \_\_\_\_\_ Endodontic

     \_\_\_\_\_ Orthodontic
     \_\_\_\_\_ Oral Surgery

     \_\_\_\_\_ Pediatrics
     \_\_\_\_\_ Periodontic
  - \_\_\_\_ University/College
- 4. How long have you been employed as a dental assistant?
  - \_\_\_\_ Less than One Year
  - \_\_\_\_ One or Two Years
  - \_\_\_\_ Three to Five Years
  - \_\_\_\_ Five to Ten Years
  - \_\_\_\_ Over Ten Years
- Does your employer support certification through increased salaries for Certified Dental Assistants when compared with dental assistants not certified?
   Yes
   No

6. Please provide the name of the state in which you are employed

Comments:

\_\_\_\_\_

Thank you for your participation! Your responses are very important.

Phase IV of the Core Competencies Study Survey Materials Sent to Program Directors of ADA-Accredited Dental Assisting Educational Programs December 2004

#### MEMORANDUM

December 14, 2004

TO:	Program Directors of ADA Accredited Programs
FROM:	Cynthia C. Durley, MEd, MBA Executive Director
RE:	Survey of Dental Assisting Core Competencies

# We need your help to develop a career ladder of national core competencies for dental assistants!

In 2000, the Dental Assisting National Board, Inc. (DANB) and the American Dental Assistants Association (ADAA) formed a joint committee, the ADAA/DANB Alliance (formerly the ADAA/DANB Ad Hoc Committee to Enhance the Dental Assisting Profession). This committee has met twice a year since its inception. It has been addressing many issues of interest to the dental assisting profession, primarily to develop a ranking of core competencies for dental assistants from most basic (entry level), to most complex (the expanded functions level).

Why? The United States is becoming a more mobile society. Many states are moving toward recognizing professional credentials earned in other states (known as 'reciprocity,' or 'licensure by credentials'). Currently, there are no national mandatory education or credentialing requirements for dental assistants - every state has its own dental practice act, with its own requirements for dental assistants, which allows assistants to perform various duties within that state. Currently, 36 states recognize or require dental assistants to pass a DANB examination. However, dental assisting functions allowed in each state and requirements to perform these functions may vary greatly.

The ADAA/DANB Alliance is working to define and rank core dental assisting competencies with the hope of supporting one national set of dental assisting tasks, levels, and requirements, and reinforcing the notion of a viable career ladder for dental assistants. State boards of dentistry often contact DANB for such information as they update their state dental practice acts. Your work on this survey will help us to provide important input to the state dental boards, which could ultimately serve to set national dental assisting standards and help to elevate the dental assisting profession.

You have been randomly selected to help the committee with this, the final phases of the survey. Due to the nature of random sampling, some of you may

have participated in phases I or II of this study. If that is the case, kindly accept our invitation to participate for a second time. Please read the enclosed instructions to complete the survey. Return it to Chris McManus, DANB Research Coordinator, in the enclosed postage paid envelope by January 15<sup>th</sup>, 2005. Any questions? Call me at 1-800-FOR-DANB, extension 428, or Chris at extension 444. Thank you for your input.

Turn over for survey instructions

### **Core Competencies: Survey Directions**

Seventy dental assisting tasks or functions are listed randomly below. Please consider each task separately. Rate the **task** in terms of its level of complexity as it relates to the experience, training, and/or education you believe a dental assistant should possess in order to be allowed to perform it. Category A tasks would be considered most basic (least complex), requiring little or no training or education beyond a brief orientation to the task. Category D tasks would be considered most complex, requiring extensive experience, training, or even some formal courses in order to be able to competently perform the task.

Use the following definitions to guide your responses. (Note that 'OJT' refers to an on-the-job-trained dental assistant.)

#### Category A

These are the most basic dental assisting tasks; No minimum experience, training, or education should be required to perform the task (though the task may require a short orientation in order to perform it); that is, in order to perform a Category A task, the assistant needs only to be provided with short, one-time verbal instructions or read a short instruction sheet.

### <u>Category B</u>

These tasks are of low to moderate complexity, requiring less than 2 years full time or up to 4 years part time dental assisting work experience OR up to 12 months of formal education or training in order to perform this task. Tasks in Category B are appropriate for relatively new OJTs and students currently enrolled in a formal dental assisting education program.

### <u>Category C</u>

These tasks are of moderate complexity, requiring 2+ years of full time or 4+ years of part time work experience (or some combination of full and part time experience) OR at least 12 months of formal education or training. (Tasks in Category C are appropriate for dental assistants who have completed a formal dental assisting education program or who are highly experienced OJTs.)

### <u>Category D</u>

These tasks are most complex. In order to perform Category D tasks, the dental assistant would require specific, advanced education or training in addition to or beyond the level required for Category C tasks.

As you rank these tasks, please keep in mind the following:

- Patient safety is of utmost importance.
- Category A tasks are those that would not be likely to cause harm to a patient if performed by an untrained, inexperienced assistant.
- In contrast, those tasks at the Category D level are those that you believe require the most advanced education, training and/or experience, since a patient could be harmed if an untrained, inexperienced assistant performed the task.
- Do not consider what you do or are permitted to do in your office or state. Instead, think of this as an opportunity to define and rank dental assisting tasks that could be applied across the country. Do not respond to 'what is.' Respond instead to 'what should be.'

After we tally all responses, we will compare responses to the prior phases and work to define recommended minimum dental assisting education and examination requirements to perform each level of dental assisting task. If you are interested in receiving an Executive Summary of these results, please include your name and street or e-mail address below (please print or type):

Name:		
Address:		
City	State	_ Zip
Email:		

Levels for Dental Assistants		Category				
Page 1	A	В	C	D		
1. Perform mouth mirror inspection of the oral cavity	C,	Ċ	0	C		
2. Chart existing restorations or conditions	0	C	0	<		
3. Phone in prescriptions at the direction of the dentist	<	0	()	¢		
<ol> <li>Receive and prepare patients for treatment, including seating, positioning chair, and placing napkin</li> </ol>	Ċ	0	0	C		
5. Complete laboratory authorization forms	10	$\langle \circ \rangle$	0	Ć		
5. Place and remove retraction cord	· 0	0	C	С		
7. Perform routine maintenance of dental equipment	<_a	÷.	0			
B. Monitor and respond to post-surgical bleeding	; 0	0	0	C		
9. Perform coronal polishing procedures	5	0	0	C		
10. Apply effective communication techniques with a variety of patients	: o	0	0	C		
11. Transfer dental instruments	1	0	$\langle \cdot \rangle$	Ċ		
12. Place amalgam for condensation by the dentist	( o	0	0	С		
13. Remove sutures	- 2	0	0	С		
14. Dry canals	0	0	0			
15. Tie in archwires	Ó	0	0	C		
16. Demonstrate knowledge of ethics/jurisprudence/patient confidentiality	0	0	0	C		
17. Identify features of rotary instruments	2	Ó	0	С		
18. Apply topical fluoride	0	$\bigcirc$	0	C		

Survey: Core Competencies and Minimum Proficiency Levels for Dental Assistants		Category			
Page 2	A	В	С		
19. Select and manipulate gypsums and waxes	0	$\bigcirc$	O		
20. Perform supragingival scaling	0	0	0		
21. Mix dental materials	0	С	0		
22. Expose radiographs	0	0	0		
23. Evaluate radiographs for diagnostic quality	0	0	0		
24. Provide patient preventive education and oral hygiene instruction	0	0	0		
25. Perform sterilization and disinfection procedures	0	0	0		
26. Provide pre- and post-operative instructions	0	0	0		
27. Place and remove dental dam	0	0	0		
28. Pour, trim, and evaluate the quality of diagnostic casts	0	0	0		
29. Size and place orthodontic bands and brackets	0	0	0		
30. Using the concepts of four-handed dentistry, assist with basic restorative procedures, including prosthodontics and restorative dentistry	0	0	0	-	
31. Identify intraoral anatomy	. O	0	0		
32. Demonstrate understanding of the OSHA Hazard Communication Standard	0	0	0		
33. Place, cure and finish composite resin restorations	0	0	0		
34. Place liners and bases	0	0	0		
35. Place periodontal dressings	0	0	0		
36. Demonstrate understanding of the OSHA Bloodborne Pathogens Standard	0	0	$\odot$		

Survey: Core Competencies and Minimum Proficiency Levels for Dental Assistants		Categ	ory	
Page 3	A	в	С	I
37. Take and record vital signs	0	$\odot$	0	C
38. Monitor vital signs		0	0	(
39. Clean and polish removable appliances and prostheses	<u>ري</u> د	0	C	(
40. Apply pit and fissure sealants	0	0	0	(
41. Prepare procedural trays/armamentaria set-ups	( <u>.</u> )	0	0	(
42. Place orthodontic separators	0	0	0	(
43. Size and fit stainless steel crowns	0	O	O	1
44. Take preliminary impressions	: o	0	0	(
45. Place and remove matrix bands	63	0	0	(
46. Take final impressions	і о	0	0	(
47. Fabricate and place temporary crowns	÷	0	O	(
48. Maintain field of operation during dental procedures through the use of retraction, suction, irrigation, drying, placing and removing cotton rolls, etc.	. 0	0	0	(
49. Perform vitality tests	<i>.</i>	0	o	(
50. Place temporary fillings	0	0	0	(
51. Carve amalgams	0	0	0	(
52. Process dental radiographs	0	0	0	(
53. Mount and label dental radiographs	-	0		(
54. Remove temporary crowns and cements	- -	$\odot$	0	(

Survey: Core Competencies and Minimum Proficiency Levels for Dental Assistants		Category			
Page 4	Α	В	С		
55. Remove temporary fillings	0	0	0	-	
56. Apply topical anesthetic to the injection site	0	0	0	-	
57. Demonstrate understanding of the Centers for Disease Control and Prevention Guidelines	Ċ.	0	0	_	
58. Using the concepts of four-handed dentistry, assist with basic intraoral surgical procedures, including extractions, periodontics, endodontics, and implants	0	0	0		
59. Monitor nitrous oxide/oxygen analgesia	0	0	0		
60. Maintain emergency kit	0	0	0		
61. Remove permanent cement from supragingival surfaces	0	0	0		
62. Remove periodontal dressings	0	0	0		
63. Place post-extraction dressings	0	0	0		
64. Fabricate custom trays, to include impression and bleaching trays, and athletic mouthguards	0	0	0		
65. Recognize basic medical emergencies	0	0	0		
66. Recognize basic dental emergencies	0	0	0		
67. Respond to basic medical emergencies	0	0	0	-	
68. Respond to basic dental emergencies	0	0	0		
69. Remove post-extraction dressings	0	0	0		
70. Place stainless steel crowns	0	C	0		
	. O	0	0		
		0	0		

## **Core Competencies: Demographic Information**

In order to make best use of the data we are collecting during this project, please complete the following information and submit with your survey questionnaires.

1. Are you a Certified Dental Assistant?  $\Rightarrow$  Yes  $\Rightarrow$  No

If yes to #1, please provide your 6 digit Certification Number (located on your DANB wallet card or certificate)

2. Please tell us about your practice. I would best describe my practice setting as:

 Private Practice	 Clinic/HMO
 Hospital	 Military
 State/Municipal Health Dept	 Prison
 University/College	

- 3. What type of practice do you work for?
  - \_\_\_\_\_ General Dentistry
     \_\_\_\_\_ Endodontic

     \_\_\_\_\_ Orthodontic
     \_\_\_\_\_ Oral Surgery

     \_\_\_\_\_ Pediatrics
     \_\_\_\_\_ Periodontic
  - \_\_\_\_ University/College
- 4. How long have you been employed as a dental assistant?
  - \_\_\_\_ Less than One Year
  - \_\_\_\_ One or Two Years
  - \_\_\_\_ Three to Five Years
  - \_\_\_\_ Five to Ten Years
  - \_\_\_\_ Over Ten Years
- Does your employer support certification through increased salaries for Certified Dental Assistants when compared with dental assistants not certified?
   Yes
   No

6. Please provide the name of the state in which you are employed

Comments:

\_\_\_\_\_

Thank you for your participation! Your responses are very important.

### Appendix D

Phase II of the Core Competencies Study Postcard sent to non-CDAs to solicit participation in the Core Competency Survey using old category descriptions: Entry, DA, CDA/RDA , & EFDA December 2002

Phase IV of the Core Competencies Study The same postcard sent to non-CDAs to solicit participation in the Core Competency Survey using new category descriptions: A, B, C & D December 2004

### A postcard was mailed to non-CDAs

Postcard copy:

Dear Dental Assistant:

The Dental Assisting National Board, Inc. (DANB) and the American Dental Assistants Association (ADAA) will be conducting a survey on ranking core competencies in dental assisting. The goal of this survey is to aid in developing a career ladder for dental assistants and to assist state dental boards with revisions of state practice acts. You are being invited to participate in this process. Participation involves completing a 2-page survey.

If you are interested in participating, please call 1-800-367-3262, extension 442 and follow the instructions. We look forward to your participation in this important DANB/ADAA joint project.

If they responded to the postcard, the dental assistants received a cover letter, a core competency survey and a demographics survey.