Tufts School of Dental Medicine, August 29, 2016

How to Write the Perfect Abstract

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Definitions

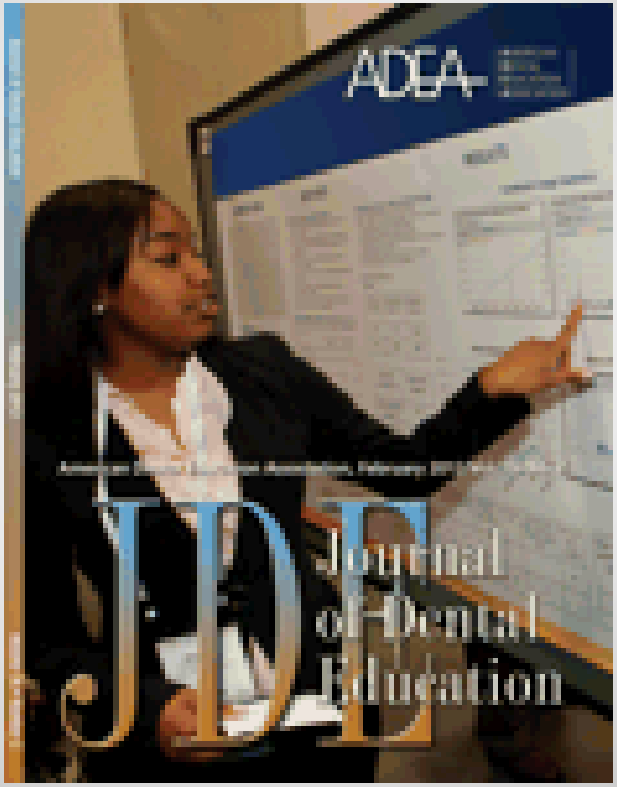
ADEA/AADR/IADR annual session abstract: a brief overview of a scholarly project that will be presented at the association's annual meeting

At ADEA: presented as a poster

At ADEA/IADR: presented as either a poster or an oral presentation

Abstract is **published** as a scholarly publication (in JDE for ADEA abstracts and in JDR for AADR/IADR abstracts).

ADEA Poster Presentation



Abstracts Published in February JDE

removal without violating the principles of cavity preparation. Overall, >90% agreed or extremely agreed that this integrated operative session and the pre-clinic session were helpful and should be incorporated into the future curriculum. Conclusion: These results suggest that the module achieved its objectives of increasing student confidence and critical thinking in applying concepts of ideal preparation onto a carious tooth and that it was accepted by students. Future research will follow up on students' perceptions once they have performed operative procedures in clinic.

PO-012. Tell, Show, Do: Evidence and Application in Medical and Dental Education

Daniel M. Rozen, Edmund Khoo, Mitchell J. Lipp, New York University

Educational Research

The Tell, Show, Do method (TSD) is a common patient behavioral management technique used in dentistry. TSD may be particularly pertinent for dental educators in terms of psychomotor development, conceptual development (understanding a concept or theory), and social/emotional development (self-awareness, self-criticism, empathy). The purpose of this study was to assess the current state of evidence for the efficacy of the TSD method and its prevalence across disciplines in medicine and dentistry. Methods: A systematic search was conducted using PubMed, Web of Science, CINAHL, Embase, PsychINFO, Medline, ERIC, Scopus, and Dentistry and Oral Sciences Source with the phrase "tell, show, do" and no date restrictions. Articles were analyzed by two authors for inclusion. Articles for inclusion showed components of the TSD method in audio (tell), visual (show), or motor (do) and its application to a particular discipline. The search produced 220 articles in total after duplicate removal. Articles were screened for inclusion by two authors by scanning titles and abstracts resulting in 17 articles. Results: There was a spike in publication on this topic between 2001 and 2010 (>55%), and over 75% of the articles were published after 2001. Over 56% of the articles were published in pediatric journals, followed by dental education (19%), general dentistry (19%), and dental hygiene (6%) journals. Conclusion: The authors concluded that dental education should further investigate TSD in procedural skill training and competence training of educators, students, and practitioners.

PO-013. Noise Levels in a Predoctoral Dental School Setting

Sabrina Nguyen, Britta Magnuson, David Frantz, Holly Fadie, Shivam Patel, Alexander Toth, Emily Schadt, Matthew Finkelman, Melissa Ing, Tufts University

Educational Research

Dental students and faculty are subjected to noise on a daily basis due to the use of instruments such as handpieces, ultrasonic scalers, suction, and laboratory equipment. Noise can induce stress, decrease communication and concentration, and potentially cause hearing loss in the affected individual. The Occupational Safety and Health Administration's permissible exposure limit (PEL) to noise is 90dBA for an eight-hour day. The National Institute for Occupational Safety and Health has set the PEL at 85dBA. This study evaluated noise levels in predoctoral settings at Tufts University School of Dental Medicine with various dental equipment and compared it to 85dBA. Methods: The Tufts University Health Sciences Institutional Review Board determined this study not to be human subject research. A Casella CEL-320 Sound Level Meter/ Noise Dosimeter was utilized for noise measurements. Noise levels were evaluated on the following equipment: low-speed handpiece, nose cone on acrylic, high-speed handpiece with suction, high-speed without suction, ultrasonic scalers, suction by itself, and model trimmer. Four investigators (two faculty and two students) used equipment at a set working distance of 14". Intervals of 30 seconds were measured. Ten repetitions were done by each investigator. If a measurement was ≥85dBA, all investigators completed ten more repetitions. Overall noise level was assessed in the preclinical laboratory, clinical floor, clinical laboratory, and preclinical practical examination. Five repetitions of 30 seconds each were recorded. If any reading had been ≥85dBA, another five repetitions would have been recorded. The minimum, maximum, and average were recorded. Results: Two pieces of equipment had measurements ≥85dBA: nose cone on acrylic and model trimmer. The other equipment had no readings ≥85dBA. Nose cone on acrylic had five out of 80 readings (6.25%) ≥85dBA, with a mean maximum of 78.4dBA (SD 3.5), minimum maximum of 72.3dBA, and maximum of 88.9dBA; 95% CI (2.1%, 14.0%), 95% prediction interval (71.4dBA, 85.3dBA). The model trimmer had one out of 80 readings (1.25%) ≥85dBA, with a mean maximum of 80.5dBA (SD 2.6), minimum maximum of 73.9dBA, and maximum of 85.1dBA; 95% CI (0.03%, 6.77%), 95% prediction interval (73.4dBA, 85.7dBA). None of the overall noise levels readings were ≥85dBA. Conclusion: All instruments and settings had a mean maximum below 85dBA. Most of the instruments and all settings had maximum readings below 85dBA. While some maximum readings (for nose cone and model trimmer) were ≥85dBA, none were ≥90dBA. While there was a small percentage of maximum readings ≥85dBA, all mean maximums were below 85dBA, which appears to indicate that the PEL would not be breached for either OSHA or NIOSH limits over an eight-hour day.

PO-014. Learning Resource Used Versus Usefulness in the Basic Sciences Curriculum

Monica Tain, Sang Park, Harvard School of Dental Medicine

Work in Progress

PO-015. Knowledge and Attitudes of Dental Students in the Philippines About Dental Public Health

Risha De Leon, Tufts University; Arlene Alfaro, University of the Philippines; Joseph De Leon, Tofool Alghanem, Tufts University

Educational Research

The field of public health dentistry plays an essential role in educating the public about oral health, yet most dental students remain uninterested and uninformed when it comes to issues of public health, and public health is rarely chosen as a specialty by dental students. Compared to medical students, dental students are less knowledgeable about the importance of public health and have a less favorable attitude toward public service. Given these shortcomings in education among dental students, educators have a responsibility to provide students with a better understanding of the role, methods, and knowledge of public health. This study aimed to investigate dental students' knowledge and attitudes about dental public health in order to identify ways to encourage them to get more involved with public health practices. Methods: Two surveys were conducted at the University of the Philippines, before and after a dental public health seminar. In each survey, students answered questions about their attitudes towards public health as a career and how they viewed the importance of public health to the field of dentistry. Student responses were entered used a five-point Likert scale. Results: A total of 66 surveys were completed. The mean age of the respondents was 24 years, and 53 (80%) were female. Before the seminar, 31 respondents (47%) reported a lack of knowledge about public health careers; after the seminar, only one reported a lack of knowledge. Before the seminar, 41 respondents (62%) disagreed with the statement "dental public health offers easy employment"; after the seminar, 13 respondents (19.6%) disagreed. Before the seminar, 35 respondents (53 %) disagreed with the statement "My future career plans involve dental public health"; after the seminar, 17 respondents (25.8%) disagreed. Before the seminar, 46 of the respondents (70%) expressed interest in working with underserved populations; after the seminar, 61 respondents (92.4%) expressed interest. Conclusion: The changes in responses in these surveys suggested that student attitudes towards public health can be significantly influenced by brief-duration seminars. These results support the idea that it might be useful to introduce public health into the dental school curriculum as an essential and early component in order to increase students' awareness of dental public health and to motivate more students towards careers involved with public health.

There is no PO-016.

PO-017. The Emergence and Significance of Feedback as a Teaching Method in Dental Education

Mahdi Taebi, Mitchell J. Lipp, New York University

Educational Research

An emerging theme in educational studies has been the concept of feedback. Giving feedback is the practice of providing information to learners about their performance to maximize their learning potential. It

Not covering during this session:

- Abstracts that you write to go with an article manuscript
- Abstracts submitted for programs at the ADEA Annual Session
- Abstracts submitted for other associations' annual meetings

Three Parts of This Presentation

- Why submit a meeting abstract?
- How to submit a meeting abstract for ADEA and AADR/IADR meetings
- How to write an effective abstract

Why submit a meeting abstract??

Reasons to Submit an Abstract

General reasons:

- Share your work with others
- Move body of knowledge forward

Reasons to Submit an Abstract

Personal reasons:

- Receive recognition for your school and department
- Demonstrate your initiative and professional expertise to colleagues at institution and beyond
- Get publication & presentation credits on your CV
- Receive more feedback before writing article
- If you don't write an article, get credit and attention for your project
- Gain experience in being a scholar

How to Submit an Abstract

General guidelines:

- Must be original research or, also for ADEA, a new program with outcomes to report
- No duplicate submissions (e.g., abstracts from different authors on same project, same authors reporting on same project from slightly different perspective)
- Plan for optimal timing:
  - Research study or program must have been conducted with results available (no more ADEA Works in Progress in 2017; now only Educational Research and New Program)
  - But results cannot have been previously published anywhere, whether in abstract or article form

Specific Submission Requirements

- Meet deadlines:
  - ADEA poster abstracts: Sept. 12
  - ADEA TechExpo abstracts: Sept. 12
  - AADR/IADR: Oct. 13
- Follow all submission rules and guidelines for that organization to the letter
- Write and edit all material in a word-processing software, ensuring it meets word limits and other requirements; then, cut and paste text into the online submission website

For ADEA Submissions

Choose best category:

- **Educational Research** if project was designed as a qualitative or quantitative research study, to answer a research question; study has been conducted, and results have been analyzed.
- **New Program** if main aim is to share info about an innovative program related to important subject in dental education; program has been conducted at least once and some type of outcomes are available (may be less systematic than for Educational Research).
- **TechExpo** if technology-based.

Questions?

How Can I Write My Abstract to Make It Most Effective?

- Purposes and audiences of abstract
- Reminders about distinctive form of this type of publication
- Common problems
- General principles and detailed guidelines
  - What's needed; what's not needed
  - Required structure
  - How to remember what's needed

➢ Throughout, will focus on ADEA submissions

Purpose of Abstract?

Tendency to think of abstract as simply and straightforwardly summarizing your project or program

That's WRONG!! … or at least inadequate.

Thinking that way will generally lead to an incomplete and unconvincing abstract.

Purposes of Abstract

Instead … think in terms of 3 purposes:

1) **Communication purpose:** communicates required information clearly, efficiently, and completely
2) **Scholarly purpose:** establishes your credibility and shows due diligence
3) **Marketing purpose:** convinces readers to "buy" (i.e., read) abstract and visit your poster by showing its relevance and value

You can't rely on reviewers or readers to figure out these purposes for themselves; **you have to show them!**

Two Audiences for Abstracts

Importance of "seeing through the eyes of your readers"

First audience: reviewers/editors/gatekeepers

- Important to focus on what they'll look for (rubric)

Second audience: readers of published abstract

- Look past acceptance to end-user

Both groups:

- Some with specialized knowledge
- Others with eye on "the big picture": major issues, controversies, developments
- All with limited time

Keep in mind that abstracts …

- Are **stand-alone publications** (unlike abstracts published with articles)
- Can be **cited** in others' research
- Are available for **free online**, widening their potential audience
- May end up being the **only published report of your study or program** (studies have found that between 10% and 78% of health professions meetings abstracts are later published as articles)

So the stakes are high …

For you to produce a **high-quality abstract** that

… is accurate, complete, and focused on the most important points.

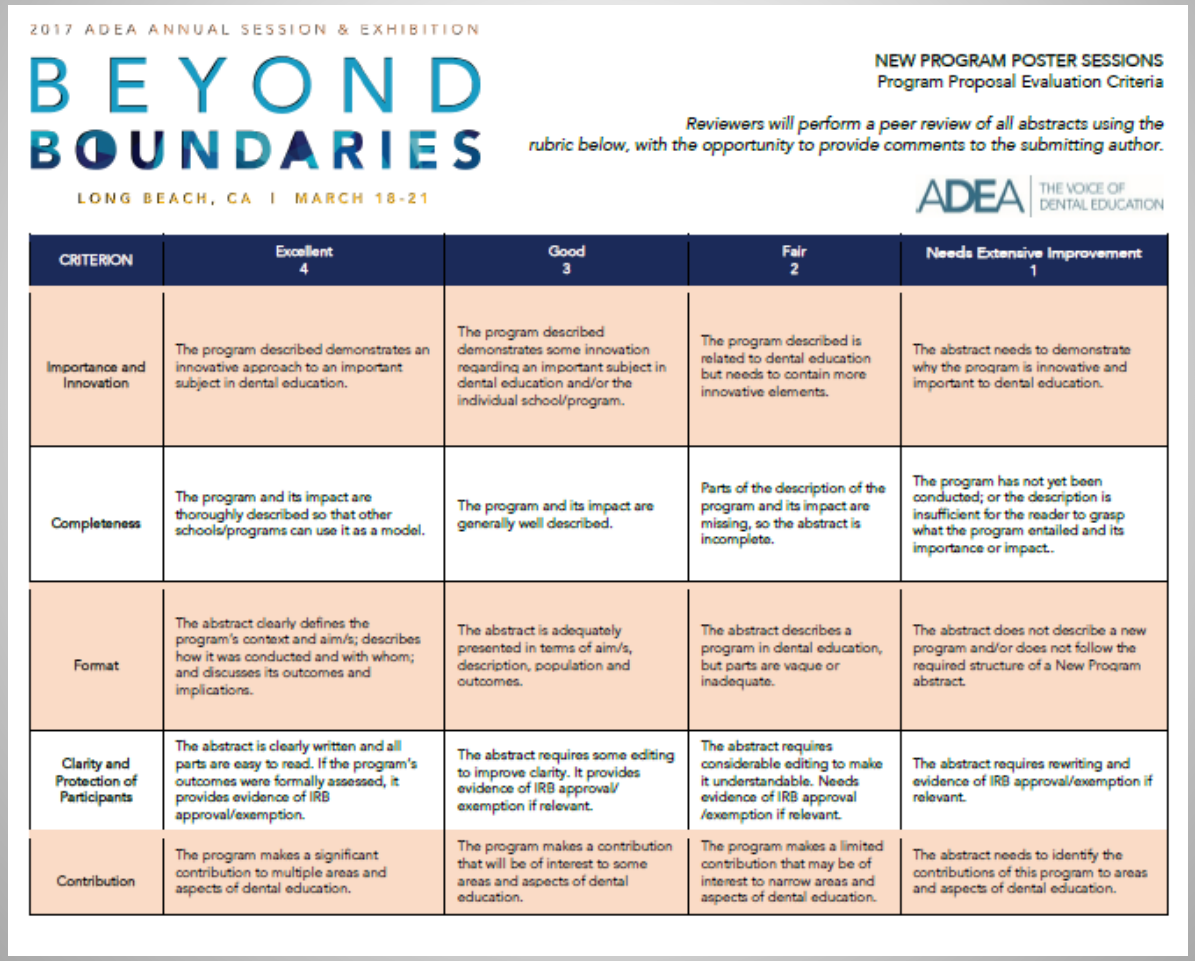
… provides sufficient information for readers to judge the relevance, quality, and value of the research or program.

Common Problems with Abstracts

As identified in studies of abstracts and our experience:

- Plunging into details of study without defining context or explaining a distinctive environment
- Omission of key information, especially definition of setting or definition of population
- Unclear description of study design
- Skimpy results or failing to highlight most important results
- Information included that's not needed (thus wasting words)
- Conclusion not justified by info in abstract
- Overstatement of implications

Use Reviewers' Rubrics to Identify Areas for Improvement



2017 ADEA ANNUAL SESSION & EXHIBITION

BEYOND BOUNDARIES

LONG BEACH, CA | MARCH 18-21

NEW PROGRAM POSTER SESSIONS
Program Proposal Evaluation Criteria

Reviewers will perform a peer review of all abstracts using the rubric below, with the opportunity to provide comments to the submitting author.

ADEA THE VOICE OF DENTAL EDUCATION

CRITERION	Excellent 4	Good 3	Fair 2	Needs Extensive Improvement 1
Importance and Innovation	The program described demonstrates an innovative approach to an important subject in dental education.	The program described demonstrates some innovation regarding an important subject in dental education and/or the individual school/program.	The program described is related to dental education but needs to contain more innovative elements.	The abstract needs to demonstrate why the program is innovative and important to dental education.
Completeness	The program and its impact are thoroughly described so that other schools/programs can use it as a model.	The program and its impact are generally well described.	Parts of the description of the program and its impact are missing, so the abstract is incomplete.	The program has not yet been conducted; or the description is insufficient for the reader to grasp what the program entailed and its importance or impact..
Format	The abstract clearly defines the program's context and aim/s; describes how it was conducted and with whom; and discusses its outcomes and implications.	The abstract is adequately presented in terms of aim/s, description, population and outcomes.	The abstract describes a program in dental education, but parts are vague or inadequate.	The abstract does not describe a new program and/or does not follow the required structure of a New Program abstract.
Clarity and Protection of Participants	The abstract is clearly written and all parts are easy to read. If the program's outcomes were formally assessed, it provides evidence of IRB approval/exemption.	The abstract requires some editing to improve clarity. It provides evidence of IRB approval/ exemption if relevant.	The abstract requires considerable editing to make it understandable. Needs evidence of IRB approval /exemption if relevant.	The abstract requires rewriting and evidence of IRB approval/exemption if relevant.
Contribution	The program makes a significant contribution to multiple areas and aspects of dental education.	The program makes a contribution that will be of interest to some areas and aspects of dental education.	The program makes a limited contribution that may be of interest to narrow areas and aspects of dental education.	The abstract needs to identify the contributions of this program to areas and aspects of dental education.

How to avoid these problems …

Writing strong abstracts is based on **skills** anyone can learn.

The rest of this session will help you master those skills!

General Principles

Since abstract serves as **sole** evidence for reviewer recommendation and for reader evaluation,

abstracts should:

- Enable a reader to scan it quickly and grasp its subject and significance
- Focus on main points, not get bogged down "in the weeds"
- Satisfy communication, scholarly, and marketing purposes

The Details

ADEA poster abstracts <u>should</u>:

- Be in third person
- Report study or describe program in past tense
- Be treated as an independent unit: spell out acronyms at first use and put acronym in parentheses and include full school names
- Report IRB approval/exemption and any required funding information
- Be no more than **350 words** (NOTE: in 2017, this limit will be strictly enforced!!)

ADEA Poster Abstracts should NOT include …

- Title, authors, or keywords
- Details about conduct of study (“in the weeds”)
- Statistical analysis used
- List of all findings
- Limitations of study unless significant
- Reference/s or reference numbers
- Any text in bold, italic, or all caps
- Any Greek letters or mathematical or other symbols other than these: =, <, >, %
- Any indented text, tables, or figures (though graphics are encouraged on poster itself)

Structure of ADEA Poster Abstracts

For **Educational Research** and **New Program** abstracts, this structure is required:

- Objectives: context, significance, and aim/s of study or program
- Methods: how study or program was conducted, with whom, and (briefly) how outcomes were measured
- Results: specifics of actual participants, with N and response rate/s; major outcomes of study or program
- Conclusion: meaning and implications of findings

For **TechExpo** presentations, abstracts are limited to 100 words and may or may not be structured.

Remember PICO model?

Used to help with research for evidence-based practice.

Identify:

P=population (problem)

I=intervention

C=comparison

O=outcome/s

Abstract Acronym

Required Elements	Section of Abstract
C=context	Objectives
A=aim/objective/purpose	Objectives
P=population/participants	Methods
I=intervention/innovation	Methods
C=comparison/how outcomes were measured	Methods
O=outcomes/results	Results
S=implications: what do the results **S**uggest?	Conclusion

CAPICOS!!

Importance of Setting Context

- Introduction of subject: like walking into roomful of strangers
- Establishes “so what” of your piece of the puzzle
- Demonstrates your familiarity with larger issues
- Demonstrates need for your work
- Catches interest of largest possible number of readers

SO please don’t skip the C (context)!

An example using CAPICOS

C: Most dental school faculty members arrive on campus with a wealth of clinical experience but little to no teacher training. For the past two decades, there has been a call for schools to educate their faculty on educational methodology through faculty development programs.

A: The aim of this study was to investigate outcomes of the Faculty Development Program at the University of Missouri-Kansas City School of Dentistry between 2007 and 2014.

P, I, C: A mixed-methods research design gathered quantitative data via email survey sent to all eligible teaching faculty members. Qualitative data came from open-ended survey questions and a focus group with seven volunteer faculty participants.

O: The survey data (response rate 54%; N=51) suggested that the defined goals of faculty development were being met for all stakeholder groups with varying degrees of success. Focus group results indicated a need for a more formal new faculty orientation and better communication with all about the specific charge of faculty development within the school.

S: Evaluation of faculty development activities in academic dental institutions is a necessary component of the ongoing improvement of dental education. Suggestions for future evaluations include the idea of collaborating with other dental schools to increase sample sizes, which would increase participants' perception of the level of confidentiality and make statistical analyses more robust.

280 words; what would you like to see added?

Important Reminders

Be sure to read and follow the **distinctive requirements** for the organization you're submitting to! Both have details on websites.

Examples of some differences:

AADR/IADR 300 words; ADEA 350 words

AADR/IADR: should submit to the appropriate Scientific Group/Network

ADEA: must designate a Learning Focus

AADR/IADR allow tables and special characters (have instructions for how to insert them)

Some similar criteria for acceptance, but AADR/IADR reviewers pay very close attention to methods and collection of scientific data

Important Reminders, cont.

ADEA abstracts are copyedited only:

- No opportunity for editor to do substantive edit other than deletions (cannot add missing info; if text is garbled, only option is to delete it)

AADR/IADR abstracts are not edited at all:

- From their guidelines: “Once you submit your abstract, it will not be edited in any way for content. Typographical or grammatical errors that appear in your abstract submission will also appear in the final ...”

Authors have no opportunity to check a proof or review changes made in editing.

After publication, no changes are allowed.

SO, it is essential that authors:

- Write out, edit, and proofread all text
- Have at least one colleague review it
- Evaluate it using the correct rubric on the ADEA website
- Finally, cut and paste final version into submission website

Questions?