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Debate: A Teaching-Learning Strategy for Developing Competence in Communication and Critical Thinking

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Introduction

Complex issues of health policy, politics, and professionalization require teaching strategies that engage and motivate today's graduate and undergraduate students to be critical thinkers in preparation for roles as leaders, organizers, and advocates. One strategy, the debate, requires students to work as individuals and as a team to research critical issues, prepare and present a logical argument, actively listen to various perspectives, differentiate between subjective and objective information, ask cogent questions, integrate relevant information, develop empathy, project confidence, cultivate poise, and formulate their own opinions based on evidence.^{1,2,3,4,5,6,7,8,9} Therefore, the debate strategy can be used as an effective pedagogical method to achieve these aforementioned competencies in baccalaureate and graduate dental hygiene programs.

Review of the Literature

Debate can be defined as an old teaching-learning strategy that presupposes an established position, either pro or con, on an issue, assertion, proposition, or solution to a problem.¹⁰ Protagoras of Abdera is thought to have developed the educational method of debate dating back to the 5th century.^{1,11} Debate as a teaching strategy thrived throughout the 19th and early 20th century and then declined in popularity.^{12,13} Renewed interest in debate as an educational teaching strategy occurred in the 1980s with the philosophy of promoting critical thinking, and continues to be a useful tool to develop skills in critical thinking, communication, and logic.¹ The debate process is worthy of consideration by dental hygiene educators as a valuable tool for experiential learning.

Tumposky suggested that debate nurtures students' critical thinking skills and awareness of thought, and facilitates clinical reasoning and ability to share viewpoints with others while learning specific content.² Debate also allows students to move beyond "rote learning of facts, theories, and technique," and provides an opportunity for applying knowledge through role-playing while demonstrating their ideas, values, and attitudes.¹⁴ However, Tumposky also cautions that debate can ultimately compromise and distort the process of learning, eg, students can work to be effective in influencing the thinking of others at the expense of being accurate.¹⁴ Another limitation in debate is that it can cause frustration and anxiety in some learners.¹

In preparation for a debate, students must thoroughly examine and research the problem using reason, logic, and analysis to formulate opinions.¹ Students must then engage in constructive teamwork to unify their position and eliminate redundancy.

This mechanism allows for taking on a position, expression of opinions/arguments while maintaining composure during analytical rebuttals. Garrett, Schoener, and Hood believe that debates are effective in courses associated with controversial issues.¹ As such, debate as a method of teaching and learning promotes professional roles such as leader and change agent while minimizing faculty bias and encouraging independent thinking in presenting controversial topics.²

Debates should be used as a "learning experience" and not as a test of knowledge acquired.¹ In the health professions, therapists must make appropriate decisions concerning treatment options for their patients.¹⁴ Debates offer the opportunity to practice analytical and communication skills along with logical thought processes important to health professionals in making decisions.

The literature notes negative aspects of debate as a teaching method. For example, important topics can sometimes be trivialized as being either black or white and right or wrong.^{9,12} Some issues have multidimensional viewpoints that may be better addressed in an open discussion; however, a debate can always be followed by a class discussion.¹ For example, to counter these limitations, Garrett, Schoener, and Hood recommend that following a debate, the teacher can plan an open discussion to allow alternative viewpoints and questions to be addressed by all members of the class.¹ Some argue that debates are about winning and losing, creating frustration and anxiety onto the student. Limitations can be minimized by down playing grades and competition, and emphasizing the process of preparation for and participation in the debate.¹

Methods

At Old Dominion University, in the senior/graduate level course *DNTH 416/516 Administration Leadership and Professional Development*, the debate strategy is used to teach the following complex, controversial topics that by nature present with multiple, conflicting issues and opinions in terms of problems and resolutions:

- The US healthcare system in crisis
- The dental hygiene educational system
- Preceptorship training for dental hygienists
- Self-regulation versus dentist regulation of the dental hygiene profession
- Level of autonomy and supervision in dental hygiene practice

Scheduling the debates during the last 5 weeks of the semester allows students to build on prior learning and have adequate time to prepare their arguments and rebuttals. Debating these topics provides a situation that students may experience once they graduate and become actively involved in affecting legislative change via professional association activity.

Pre-debate^{1,2}

For each week's topic, 8-10 students assume a unique position on 1 of 2 opposing teams (pro and con) that will debate a complex issue in need of resolution from the perspective of either organized dental hygiene or organized dentistry (or those who might conflict or support the respective positions) (see Figure 1a, 1b, 1c for the scenario and guidelines provided to the students). For the sake of debate, students must prepare to adopt, present, and defend positions that they do not necessarily agree with. Team, as well as individual preparation, is mandatory for a successful debate.

Figure 1. Debate Setting (Hypothetical Scenario)

A series of four open hearings will be held by the Committee on Health, Welfare and Institutions of the Virginia State Legislature to discuss healthcare reform, the future of dental hygiene education, preceptorship, licensure and practice in the Commonwealth. The Committee will eventually make a recommendation to the Virginia General Assembly that will affect dental hygiene. Members of the Virginia Dental Hygienists' Association, the Virginia Dental Association and representative of various private interest groups and healthcare coalitions will participate to present oral testimony and debate various aspects of the issues. See Table 1 for a brief synopsis of the key issues involved and the basic positions taken by the dental hygiene and dental communities.

Basic positions on the issues to be debated

Issues	PRO Position	CON Position
<i>Healthcare System and the Healthcare System in Crisis (individual versus employer-based versus government run approaches)</i>	Currently proposed healthcare reforms (managed care, personal medical accounts, national health insurance, consumer driven health plans) have benefits for the public and profession.	Current reforms place the public and practitioner at risk. Fee for service, direct reimbursement, and indemnity strategies are still the best.
<i>Education</i>	Expansion of the formal education preparation of dental hygienists. Dental hygienists should control the educational system for the preparation of dental hygienists. Appropriate level of education, e.g., Associates, Baccalaureate, Masters (including ADHP), and doctoral preparation.	Restriction of the formal educational preparation of dental hygienists. Dentists should control the educational system for the preparation of dental hygienists; dental assistants can be trained to do some dental hygiene services such as coronal scaling. The least amount of education for minimal competency is the best approach.
<i>Preceptorship</i>	Preceptorship should not be tolerated because it places clients at risk and undermines a quality system of education.	Preceptorship is a viable solution for preparing dental hygienists, who are in short supply in some dental practices and geographical areas.
<i>Dental Hygiene Regulation</i>	Dental hygienists should control the education and licensure system, including licensure requirements, testing procedures and disciplinary action. There should be a state board of dental hygiene to regulate the profession. ADHA should control the accreditation system.	Board of dentistry should control the education and licensure system including licensure requirements, testing procedures and disciplinary action. State boards of dentistry adequately address dental hygiene regulatory issues. ADA should control the accreditation system.
<i>Practice</i>	Dental hygienists should be able to practice under general supervision, unsupervised, and/or independent practice. Dental hygienists should be able to practice in settings to improve the public's access to care. General supervision and unsupervised practice expand public access to dental hygiene care.	Dental hygienists should be able to practice under direct supervision only. Dental hygienists should be able to practice in a dental office or typical public health setting with dentist supervision. General supervision and unsupervised practice present a risk to the public and to the practitioner.

Guidelines for Debaters on the Day of the Debate

- Dress the part to make an impact.
- Introduce yourself by name, title, educational background, years of experience and affiliation.
- Thank the Committee for allowing you the opportunity to present your viewpoint.
- Take 5 minutes to present your position, with supporting evidence and statistical data, to persuade the state legislators and to achieve your goals.
- Bring in representation from special interest groups, written testimony for others, Petitions, etc.
- Debaters in favor of dentistry's position will present their oral testimony first; debaters favoring dental hygiene's position will go second. Have the very last debater (or some designee) on each side of the issue, close with a summary of the key points.
- After all testimony on the issue is presented, state legislators on the Committee will ask questions (this is the class as a whole).
- At the end of the open hearing, each member of the Committee (class as a whole) will vote on the issue. A short debriefing will occur to discuss most effective to least effective strategies used by the debaters to present their arguments and persuade the audience.

Guidelines for Debaters in Preparation for the Debate

- Meet with members of your group to prepare your strategy.
- Determine "Who" will present the oral testimony (e.g. officers of your professional organizations, director of a nursing home, private concerned citizen, etc.). You need to assume an analytical persona. Every member of the team must present an oral argument.
- Coordinate with members of your group to avoid duplication and redundancy.
- Use costumes and props to define your analytical persona, clarify points and be persuasive.
- Be prepared to counter/rebut the issues/arguments raised by the opposition with evidence-based data!!!!

Once students sign-up for a debate topic (see Figure 2a, 2b, 3c for student sign-up sheet), each respective debate-team member assumes the role of resident expert, studies the issue from a unique perspective, collaborates with his/her respective debate team to avoid redundancies and formulate debate strategy, and prepares a cogent, a 10-12 minute presentation/argument. To jump start the assignment, I distribute a resource file to each debate team, making it clear that I expect additional evidence-based research on the current issue under debate. Although students receive written and verbal guidelines for planning their roles in the debate and the evaluation rubric, the learning activity is student researched, directed, and carried out.

Figure 2. Students Sign-up Sheet for Debate Topics

Healthcare Crisis/Delivery/Finance Options

Key Resources

1. Any professional journals on health
2. policy, education, practice, or administration
3. Anything on the uninsured and underinsured
4. Healthcare reform proposals in the US Congress
5. Healthcare delivery/finance systems in other
7. developed countries
- 8.
9. World Health Organization

(pro and con Medicaid, Medical savings accounts, Clinton plan, Bush plan, consumer-driven plans, managed care systems, National Health Insurance, National Health Service, Canadian Health System, systems from other countries)

Dental Hygiene Education

1. Anything current on the Future of Dental
2. or Dental Hygiene Education or on the
3. advanced dental hygiene practitioner.
- 4.
5. Look at educational trends in nursing, PT, OT
6. PEW Foundation Reports
7. Institute of Medicine reports
8. ADA reports
9. ADHA reports and position papers

(pro or con on associate level education, BSDH education, MSDH education, doctoral education, Advanced Dental Hygiene Practitioner Program)

Preceptorship

1. Curriculum for the Alabama Preceptorship Program
- 2.
- 3.
4. American Dental Hygienists' Association ADA action on preceptorship.
5. From: <http://www.adha.org/profissues/preceptorship/adaactions.htm>
- 6.
- 7.
8. Interview a dental hygienist from Alabama ADHA documents on preceptorship

(pro or con on preceptorship, Alabama dental hygiene program, using dental assistants to scale)

Licensure

1. Written Statement of the American Association of Dental Schools to the Institute of Medicine Committee on the Future of Dental Education. *JDE* 58(1) 26-37, 1994
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
8. American Board of Dental Examiners (ADEX) PEW Foundation Reports ADEA, ADA, ADHA College of Dental Hygienists of British Columbia <http://www.cdahbc.com/html/homepage.html>
9. **“Point/Counterpoint” on the role of portfolio assessments for dental licensure in January 2006 issue of the *Journal of the American Dental Association*. You may view the article by going to: <http://jada.ada.org/cgi/content/full/137/1/30>**

(pro or con on institutional licensure, self-regulation for dental hygienists, board certification, national licensure, regional licensure, sunset review outcomes, Canadian approach to self-regulation, New Mexico's approach to self regulation, Iowa's approach to self regulation)

Practice

1. Written Statement of the American
2. Association of Dental Schools to the
3. Institute of Medicine Committee on the
4. Future of Dental Education. JDE 58(1)26-
5. 37, 1994
6. Federal Trade Commission Publications
7. around 1980
8. ADEA, ADA, ADHA
9. ADEA,'s Center for Public Policy and Advocacy

(pro or con on direct, indirect, personal, general supervision; independent practice, independent contracting, unsupervised practice, alternative practice, limited permit dental hygiene, prescription privileges)

Other sources for current information:

<ul style="list-style-type: none"> • <i>Journal of the American Dental Association</i> • <i>Prospectus of the ADHA</i> • <i>Journal of Dental Hygiene Education Update</i> (biannual publication <i>ACCESS</i> of the ADHA) • <i>Surgeon General's Report on Oral Health</i> • <i>Healthy People 2010</i> • <i>PEW Reports</i> on various health-related issues • Association of Schools of Allied Health Professions (www.asahp.org) • American Academy of Periodontology www.perio.org • <i>International Journal of Dental Hygiene</i> 	<ul style="list-style-type: none"> • ADA News (www.ada.org) • Oral Health Report Card http://www.dentalgentlecare.com/oral_health_report_card.htm • <i>Journal of Dental Education RDH Magazine</i> • ADHA (www.adha.org) • Center for Health Workforce Studies (Http://chws.albany.edu) at the University of Albany • <i>Reports of Health Personnel in the US: Trends, Issues and projections of Supply and Demand for Selected Health Disciplines</i>, Bureau of Health Professions, US Department of Health and Human Services (also known as <i>The Tenth Report to Congress</i>)
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***The debate*^{1, 2,15}**

During each week's debate, the entire class learns about the issue via listening to the 8-10 different presentations/arguments, witnesses friendly debate among the 8-10 students on the panel, and has the opportunity to pose questions and voice their opinions regarding the issues. Structure of the debate includes:

Constructive Argument Phase- Each side orally presents their constructive argument without interruption using their adopted analytical persona.

Rebuttal Phase - Each side has the opportunity to challenge the constructive argument, and rebut statements based on logic and evidence.

Class Interaction Phase - Each member of the audience (the class) has the opportunity to get involved in the debate by asking questions, making observations, pointing out areas of potential compromise, or expressing alternative positions that were not brought out during the debate.

Each debater is also required to develop one good test question that measures acquisition of the major point that he/she was making during the constructive argument phase of the debate. Having to prepare a good test question helps debaters focus on their key message; if the question is good, I include it on the final exam. This part of the assignment encourages good test question writing and class attentiveness, knowing that the class may be tested on the information. It also requires students to apply their knowledge and skills from an educational methods course taken the previous semester.

Key Advantages^{1-9, 14, 15}

Given that each debater is responsible for: a) bringing to the forefront unique, evidence-based information from the professional literature, and b) developing one test question that measures student knowledge of the main point of their 10-12 minute oral argument, a large body of complex, conflicting, rapidly changing information can be covered in a short period of time. Moreover, students gain proficiency in accessing information from electronic databases, interviewing professionals in the community, using resource people from various professional organizations, synthesizing and analyzing information, orally communicating their position effectively and succinctly, and defending their position all within the context of a healthy debate.

Key Disadvantages^{2, 9, 12, 14, 16}

Perhaps the greatest limitation of the debate is its emphasis on competition, ie, winning and losing without enough emphasis on compromise and the consensus building necessary for reaching the best solution. Some students may trivialize issues at the expense of winning while others are uncomfortable with a confrontational environment. This is a limitation given that most of our students are women and research shows that women in particular are much more comfortable with consensus building rather than with public argument. Also, some minority students, regardless of gender, may come from cultures that value group harmony over individual opinion and argument.

Post-debate

Upon completion of each week's debate, students and the instructor leave the class enlightened, better able to express personal opinions, and hopefully more prepared to take action about issues that affect the dental hygiene profession.

Evaluation¹⁵

Students receive an evaluation rubric at the beginning of the semester when the debate assignment is explained and when debate groups are formed (see Figure 3 for rubric used to evaluate student debate performance). Although group preparation is important for developing a coherent pro or con argument, and to avoid redundancy of arguments, each debater is evaluated on his/her own performance in areas such as: presentation of self, use of statistics/evidence-based research to support the argument, critical examination of the issue, and use of media and handouts to support the arguments. Mechanics of the delivery such as enthusiasm, eye contact, control when debating, and extemporaneous argument rather than reading from a prepared text is also evaluated.

Figure 3. Debate Rubric for Evaluating Student Debate Performance

<u>EFFECTIVE INTRODUCTION</u>	<u>Earned/Possible</u>
1. Acknowledge and thank the audience	/5
2. State credentials/affiliation to establish your credibility	
3. Purpose of the presentation communicated to audience.	
4. Significance of the issue is clearly explained: -supportive statistics -positions of various constituents	
5. Perceives implications of the issues for dental hygiene/public policy	
<u>REVIEW OF CURRENT LITERATURE</u>	<u>/5</u>
1. Issues comprehensively discussed/evidence-based.	
2. Important findings noted	
3. Studies critically examined	
4. Differentiates between fact and opinion	
5. Amount of information presented is appropriate	
<u>CONCLUSIONS/SUMMARY</u>	<u>/5</u>
1. Conclusions are evidence based and supported by data presented	
2. Recommendations are made	
3. A closing statement is evident	
4. Thank the audience	
5. Submit in writing a multiple choice question that tests one key point made.	
<u>MECHANISMS OF THE PRESENTATION</u>	<u>/5</u>
1. Uses quality media, powerpoint, pointers and/or handouts to enhance the effectiveness of the message.	
2. Establishes rapport with the audience. e.g., good eye contact, high energy level, enthusiasm (avoids "reading" to the audience)	
3. Knowledgeable about the subject: -commands respect as a resident expert -answers questions in an authoritative manner	
4. Presentation is logically organized and coherent	
5. Maintains composure and control during heated debate (avoids emotionalism)	
<u>Total /20 = _____</u>	

After each debate, I ask the class to vote on which side was most convincing (rather than what side of the issue you most support), and then I ask them to identify the most-effective to least-effective strategies used by the debaters. Hopefully, they will remember the most effective debate strategies used and emulate these strategies in the future.

Summary

The literature highlights key benefits from debate as a teaching-learning strategy for developing critical thinking and analytical skills while fostering teamwork and communication. Authors report that this method of teaching-learning has been implemented successfully in nursing and occupational therapy programs and would benefit other academic programs in the health sciences, particularly in courses that cover controversial issues. Although there are disadvantages to using the debate as a teaching-learning strategy, the benefits far outweigh the disadvantages.

In conclusion, debating is an effective pedagogical strategy because of the level of responsibility for learning and active involvement required by all student debaters. Moreover, it provides an experience by which students can develop competencies in researching current issues, preparing logical arguments, actively listening to various perspectives, differentiating between subjective and evidence-based information, asking cogent questions, integrating relevant information, and formulating their own opinions based on evidence. After the debate is over, students also report that the experience is FUN!

Acknowledgements

Notes

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