Accounting Faculty Who Don't Use Effective Teaching Methods

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Questionnaires were e-mailed to 4,791 accounting faculty; 391 responses were received. The survey included closed-ended and open-ended questions. The closed-ended responses were correlated and regressed. The open-ended responses were grouped and tallied. Accounting faculty were asked if accounting faculty were using effective teaching methods. Approximately 3/3 of the respondents stated that other faculty were not using the most effective teaching methods, and approximately 1/3 indicated that they themselves were not using the most effective teaching methods. The findings indicated the following reasons: (a) lack of sufficient time, (b) an incapability or unwillingness, and (c) a lack of resources.

INTRODUCTION

"The most widely-applied teaching methods are ... lecture, seminar, and [using the] textbook [as a guide]." Lecture is one sided (faculty lecture and students listen and take notes); seminar is a dialog or discussion between the faculty and students; and following the textbook leads to an adherence to a given textbook pedagogy. However, learning is neither static nor universal, "Because reality is in part culture dependent, it changes over time, as cultures do, and varies from community to community. Knowledge is neither eternal nor universal" but there are commonalities and continuities from culture to culture. "Students need to find enduring values ... and ideals ... which do not contradict their experience of reality but at the same time provide an adequate basis for everyday living" (Brown, 1993). Students "should be helped to see that knowledge is value dependent, culture dependent and changeable ... [Yet at] the same time ... they should be helped to identify continuities and commonalities that give some stability and direction to their lives" (Beck, 1993).

"These are dangerous times for American schools as powerful outside forces impose changes poorly grounded in theory, research and practice. ... An effective teacher must spend much time on strategic questions - pedagogy - ... [of] how to reach [each] child" (McKenzie, 2003). It is disappointing to think that faculty might not be using the most effective teaching methods available to them.

PRIOR RESEARCH

Prior research shows that accounting faculty may not be using those teaching methods they say they should be using while simultaneously using the teaching methods the students want (as opposed to need). The prior research also shows possible reasons why faculty might not be using the most effective teaching methods. These included insufficient time to use the most effective teaching methods; the incapability of faculty to use the most effective teaching methods; or excessive cost of implementing such effective teaching methods. The incapability might have been because of tradition and lack of training, and high student cost might be from the cost of some textbooks, the cost of fewer students in a class, or the cost of technology such as specialty software, and hardware (for example, computers, large projection screens, projectors, or document cameras/projectors).

Faculty Do Not Use the Teaching Methods They Say They Should Use

Face-to-face interviews were conducted with 30 accounting faculty. According to those interviews, there was a difference between the teaching methods faulty said they should use and those they said they did use. In order of preference, they said they should be using: entertainment, group work, learning how to learn, active participation, and unstructured problem solving. (Entertainment refers to those techniques used to hold the students' interest even though such techniques might not directly relate to the subject currently being taught, such as relating past personal experiences.) However, these same faculty said they were using in order of usage: group work, lecture, whole class discussion, case analysis, structured problem solving, unstructured problem solving, conceptualization, and student presentation. Of the 13 methods listed, only 2 were the same (Jinkens 2003). See Table 1.

TABLE 1

Faculty said they did use: Faculty Said they should use:

(Traditional students**)

- 1 Group Work
- 2 Lecture
- 3 Whole Class Discussion
- 4 Case Analysis
- 5 Structured Problem Solving
- 6 Unstructured Problem Solving
- 7 Conceptualization
- 8 Student Presentations

- 1 Entertainment
- 2 Group Work
- 3 Learning How To Learn
- 4 Active Participation
- 5 Unstructured Problem Solving

** The teaching methods faculty said should be used for traditional students and those they said should be used for nontraditional students were exactly the same except that the order of preference was exactly reversed.

Although there is some overlap (Group Work and Unstructured Problem Solving), there is more disagreement than there is agreement.

Faculty Tend to Use Those Teaching Methods that the Students Prefer

A study by Jinkens (2003) indicated that although there were differences between those teaching methods accounting students preferred and those the accounting faculty used, there were similarities. The students stated they preferred those methods that made the classes more enjoyable, while the faculty used those methods which taught the material while simultaneously making the class more enjoyable. The 5 teaching methods most preferred by the students were: (1) make classes interesting and fun (13.7%), (2) active participation (12.8%), (3) structured problem solving (10.3%), (4) teaching to the examination (8.5%), and (5) lecture (7.3%); while the faculty used: (1) active participation (12.2%), (2) lecture

(12.1%), (3) structured problem solving (9.8%), (4) making classes interesting and fun (9.3%), and (5) group work (8.2%).

TABLE 2

Teaching Methods Used By Faculty:			Teaching Methods Students Preferred:
1	Active Participation 12.2%	1	Making Classes Interesting & Fun 13.7%
2	Lecture 12.1%	2	Active Participation 12.8%
3	Structured Problem Solving 9.8%	3	Structured Problem Solving 10.3%
4	Making Classes Interesting & Fun 9.3%	4	Teaching To The Examination 8.5%
5	Group Work 8.2%	5	Lecture 7.3%
6	Case Analysis 6.3%	6	Entertainment 7.2%
7	Subjects Covered in Detail 6%	7	Case Analysis 5.7%
8	Whole Class Discussion 5.1%	8	Group Work 5.4%
9	Unstructured Problem Solving 4.9%	9	Subjects Covered In Detail 5.2%
10	Student Presentations 4.7%	10	Whole Class Discussion 4%
11	Soliciting Feedback 4.2%	11	Soliciting Feedback 3.8%
12	Conceptualization 3.7%	12	Competition 3.2%
13	Learning How To Learn 3.4%	13	Increase Self-expectation/Esteem 3%
14	Increase Self-expectation/Esteem 3.1%	14	Learning How To Learn 2.5%
15	Entertainment 2.8%	15	Student Presentations 2.2%
16	Teaching To Examination 1.7%	16	Conceptualization 2%
17	Competition 1.7%	17	Unstructured Problem Solving 1.9%
18	Reflection In Logs and Journals 0.5%	18	Reflecting In Logs and Journals 0.7%
The <u>underlined</u> items are the same as those the qualitative respondents said they used.			
The italicized items are the same as those the qualitative respondents said they should use.			

There Is Insufficient Time Available to Use Proper Teaching Methods

Insufficient time may be preventing faculty from using the most effective teaching methods. McKenzie (2003) said "Shortages of resources are endemic in many classrooms and are often worse in poorly performing schools. Time is always in short supply". There are no shortages of examples of preferred teaching methods being abandoned for less preferred methods because of insufficient time. Some of these include:

- Subject Content versus Relevance Hook (Wilson, 1999).
- Active Learning versus Lecture (Hannay, 2010).
- Team-Teaching versus Non-Team-Teaching (Walstra, 2011).
- Analysis of Data versus Collection of Data (Walstra, 2011; Böer, 2000).
- Using Service Learning versus Not Using Service Learning (Hocking, 2009).
- Using Manipulatives versus Not Using Manipulatives (Boggan, 2010).
- Subject Content versus Reading Skills (McCoss-Yergian, 2010
- Using Quizzes versus Using One-Minute-Papers (Kwan, 2011).
- Computer Systems Classes versus Traditional Classes (McCarthy, 2003).

Faculty Are Incapable to Use the Most Effective Teaching Methods

"Effective instruction depends on the professor's ability to connect with the class" (Hannay, 2010). The ability to connect may be hampered by the instructor clinging to traditional teaching methods; their inability or willingness to embrace new technologies; or because it is not a part of their repertoire. "The ability to integrate and apply learning from the course room to the real world is critical. ... This type of focus can often be difficult for educators to embrace as it encompasses a different perspective from traditional learning" (Cojanu, 2010). "Change in instructional techniques is as difficult as change in any workplace situation. Common barriers to instructional change include the powerful influence of educational tradition, faculty self-perceptions and self-definition of roles, [and] the discomfort and anxiety that change creates" (Hannay, 2010). "Educators have been somewhat reluctant and/or slow to use technologies in the classroom for varying reasons. Examples [include] lack of knowledge or experience ..., fear of change, and inability to visualize how technology [could] be used in an academic setting" (Browning, 2011). "Proficiency ... constrains our teaching performance. Specifically, our ability to create and implement learning strategies is constrained by our organizational and relationship skills, where the latter is defined broadly to include interpersonal and communication skills" (Wilson, 1999).

Insufficient Resources Prevent Faculty from Using the Most Effective

The source of the costs preventing the most preferable teaching methods from being used varies. It could be the cost of materials such as: text books; small class size or specialty classes; or the ability to change curriculum. Wilson (1999) said, "The primary resources I assess and utilize when planning a course [include]: ... the availability and affordability of related textbooks, cases and software." "Students indicate that, given the constraints and pressures of their current environment, to maximize their learning in the shortest possible time they require: More affordable textbooks" (Hannay, 2010). Additionally, needed small size classes or specialty classes may not be offered because they are cost prohibitive (Borthick, 2000). Finally, if a change requires a school wide curricular change, such change also could be cost prohibitive. A "survey of AACSB business school deans found the respondents believed in the importance of curriculum integration and deemed it to be a critical factor in student success. ... [However,] one of the challenges [to its implementation] is the cost of overhauling the business curricula" (Walstra, 2011).

HYPOTHESIS DEVELOPMENT

From the prior research, 5 hypotheses emerged. As the sample in the research was based upon a relatively small sample size (30 accounting faculty), the assertion that accounting faculty do not always use the most effective teaching methods needs to be validated. Thus:

H1: Faculty always use the most effective teaching methods.

In a similar manner, as the sample in the research was based upon a relatively small sample size (30 accounting faculty), the assertion that accounting faculty tend to use those teaching methods that the students prefer needs to be validated. Do students prefer particular teaching methods because these are the methods they want because they might be easier, or do they prefer particular teaching methods because they are the ones by which they will learn the subject matter best? Thus:

H2: Faculty use the teaching methods students prefer.

Both H1 and H2 relate to possible teaching "deficiencies," whereas H3, H4 and H5 relate to possible reasons for those "deficiencies." The prior research indicated that faculty sometimes did not use the most effective teaching practices because there was insufficient time to do so. This leads to the following hypothesis to be tested:

H3: There is insufficient time available to use the proper teaching methods.

The literature also indicated that faculty might not be using the most effective teaching methods because they were incapable of doing so. They may be accustomed to teaching in a particular manner and have difficulty in changing to a different way of teaching. They are bound by their tradition. If the faculty member has been teaching for many years, new technologies may have been developed and they have failed to keep abreast of such new technologies. They may need to be trained in the new technologies. And, finally, the faculty member may be incapable of embracing more effective teaching methods. Regardless of the reason, this leads to the next hypothesis:

H4: Faculty are incapable of using the most effective teaching methods.

Finally, the prior research indicated that faculty may not be using the most effective teaching methods because there are insufficient resources for them to do so. Maybe the faculty member needs a large projection screen, or a projector, or a document camera/projector to properly make presentations. This leads to the final hypothesis:

H5: Insufficient resources prevent faculty from using the most effective teaching methods.

RESEARCH DESIGN

Questionnaires were e-mailed to accounting faculty. There were closed-ended statements in which the faculty were asked to rate their agreement on a 7 point Likert scale ranging from Totally Agree to Totally Disagree; there were questions in which faculty were asked to choose one of the following; there were questions in which faculty were asked to choose all that apply; and there were questions in which faculty were asked to choose yes or no. These were regressed and summarized with the use of SPSS and Excel. The accounting faculty also were asked open-ended questions. They were ask to list three reasons why a professor might use teaching methods other than those they believed to be the most effective. For these, an unbiased assistant was asked to categorize the responses into appropriate Excel spreadsheet columns of their choosing. These then were edited by the author of this paper for reasonableness. Finally these results were tallied.

DATA COLLECTION

To validate H1, H2, H3, H4, and H5, the precedingly mentioned survey questionnaire was e-mailed to 4,791 accounting faculty, all of the accounting faculty in Hasselback's 2011 Accounting Faculty Directory. The data was collected as described in the "Research Design." From the collected information: the demographics were determined for all of the respondents; correlations were calculated for all of the closed-end variables, the open-ended questions were scrutinized for common themes, and the following regression model was run:

$$Yi = \sum_{i=0}^{n} \beta ixi \tag{1}$$

Where:

YI = I always use those teaching methods I believe are the most effective.

Y2 = Other faculty always use those teaching methods they believe are the most effective.

And where xi =

- 1. Faculty member's age.
- 2. Gender.
- 3. The respondent's highest level of education.
- 4. Faculty member's number of years of experience.

- 5. The highest accounting degree where the respondent teaches.
- 6. The highest accreditation where the faculty member teaches.
- 7. The class has too many students to use more effective methods.
- 8. The class has too few students to use more effective methods.
- 9. The more effective teaching methods require more time.
- 10. The more effective teaching methods require resources (technical equipment, etc.) not available at the school.
- 11. The more effective teaching methods might be beyond the faculty member's level of understanding or ability.
- 12. The more effective teaching methods might be beyond the student's level of understanding or ability.
- 13. The more effective methods might be too expensive for the students.
- 14. The professor did in fact use the methods he or she believed were the most effective, but for some reason stated that other methods were more effective.
- 15. The fear of getting negative student evaluations prevents faculty from using more effective teaching methods
- 16. Students demand that faculty members use teaching methods other than those which the faculty members believe are the most effective.
- 17. The demand to write scholarly referred journal articles prevents faculty from using teaching methods they would prefer to use.

FINDINGS

Of the 4,791 questionnaires e-mailed, 188 were not received by the recipients, for a net of 4,603 questionnaires e-mailed. Of these 391 recipients responded, an 8.5% response rate.

Descriptive Statistics

The responses were evenly distributed throughout the United States and it possessions with the exception of Alaska, South Dakota and Puerto Rico who had no respondents. The respondents were 61% male and 39% female and mostly white (91%). Their median age was between 51 and 55 years of age although the mode of their ages was 55+. PhDs/CPAs accounted for 53% of the respondents, while 23% had PhDs only, 13% had a Master's Degree and a CPA, 2% had Master's Degree only, 1% had a JD, and 8% were other. The years of teaching experience were evenly distributed from 21 years to over 31 years. The highest accounting degrees where the respondents taught were as follows: 40% Master's Degree in Accounting; 22% Doctor's Degree in Accounting; 17% Master's Degree in Business; 12% Bachelor's Degree in Accounting; 5% Doctor's Degree in Business; 2% Bachelor's Degree in Business; and 2% other. The highest accreditation where respondents taught were as follows: 42% AACSB in Accounting; 38% AACSB; 6% Regional; 5% ACBSP; 3% obtaining ACBSP; 3% obtaining AACSB; 3% obtaining ACBSP; and 2% obtaining AACSB in Accounting.

Questionnaire Findings

Of these 391 respondents, 63% of the faculty said other faculty were not using the most effective teaching methods, and when these same faculty were asked if they themselves used the most effective teaching methods, 36% said they themselves did not use the most effective teaching methods. Thus for this sample, between 36% and 63% of the faculty were not using the most effective teaching methods available to them.

Eighty-six percent (86%) of the faculty said different students learned differently, and 88% of the faculty said the most effective teaching method for one faculty member was different than the most effective teaching method for another faculty member. This indicates that there is no one way students learn best nor one way that teachers teach best.

Correlations

The closed-ended responses resulted in 136 correlations. Of these 30 had correlations of 0.20 or more with significance level of 0.95 or more. Of these correlations, there were repeating themes:

- 4 were related to time issues.
- 4 were related to insufficient faculty ability, and
- 5 related to the cost of using more effective teaching methods.

The significant correlation themes mentioned less often were:

- the faculty member's fear of getting negative teaching evaluations;
- the demand by students to use other teaching methods;
- the need for more resources;
- too many students;
- too few students;
- insufficient student understanding;
- the faculty member's age;
- the school demanding particular teaching to conform with its accreditation policies; and
- the school demanding faculty concentrate on writing scholarly journals articles rather than teaching. (See Appendix for a list of the most significant correlations.)

Regression Analysis Results

The most significant regression was a backward regression in which the dependent variable was, "Other faculty always use the teaching methods they believe are the most effective," where a yes response was coded a "1" and a no response was coded a "0." The results were as follows:

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R Square = 0.126
Adjusted R Square = 0.107
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Coefficients:

x8 = The class has too few students to use more effective methods

$$\beta = 0.219$$
 (Sig. = 0.000)

Small class size may help improve teaching effectiveness.

x9 = The more effective methods require more time

$$\beta = -0.155$$
 (Sig. = 0.010)

More time does not necessarily improve teaching effectiveness.

x1 = The faculty member's age

$$\beta = 0.145$$
 (Sig. = 0.010)

Older more experienced faculty may be more effective teachers.

x13 = The more effective teaching methods might be too expensive for the students

$$\beta = -0.107$$
 (Sig. = 0.062)

More effective teaching methods may not be too expensive for students.

x11 = The more effective teaching methods might be beyond the faculty member's level of understanding or ability

$$\beta = -0.105$$
 (Sig. = 0.083)

The more effective teaching methods are within the faculty's ability.

x3 = The faculty member's highest level of education

$$\beta = 0.102$$
 (Sig. = 0.067)

Faculty with higher levels of education may be more effective.

Open-Ended Questions

For open-ended questions, in which the accounting faculty were asked to list three reasons why a professor might use teaching methods other than those they believed to be the most effective, there were 850 responses. These results were as follows:

- 29% stated they did not have enough time to use more effective teaching methods.
- 18% stated they did not care; they used whatever was the easiest.
- 12% stated the more effective teaching methods were beyond their ability.
- 8% said they were afraid they might get negative student evaluations.
- 6% said their classes were too large to use more effective teaching methods.
- 5% said they did not use more effective teaching methods because they were not rewarded for it.
- 4% said there were insufficient resources available to develop and implement better teaching methods.
- 4% said students don't want faculty to use different teaching methods.
- 3% said their administration was pressuring them to use teaching methods they considered less effective.
- 2% said students demanded that faculty use sub-optimal methods.
- 2% said the schools' demands to write scholarly referred journal articles used all their time preventing them from developing and using more effective teaching methods.
- 2% said there was a need for flexibility.
- 2% said the more effective teaching methods were beyond the students understanding.
- 3% was other reasons.

Additional Faculty Comments

There were 36 relevant responses:

- 47% indicated the importance of flexibility.
- 14% indicated they did not care about teaching because it was not important for tenure.
- The remainder was evenly distributed with responses of less than 3%.

SUMMARY

This paper examined the validity of five hypotheses and other significant results:

H1 was validated. The respondents indicated that 63% of other accounting faculty were not using the most effective teaching methods, and that 36% stated that they themselves were not using the most effective teaching methods.

H2 was somewhat validated. There were implications suggesting that faculty may be using teaching methods the students want regardless of whether such methods were the most effective methods.

There were the following correlations from the closed-ended questions:

- 0.473: The fear of getting negative student evaluations prevents faculty from using more effective teaching methods. & Students demand that faculty members use teaching methods other than those the faculty member believes are the most effective.
- 0.240: The more effective teaching methods require more time. & The fear of getting negative student evaluations prevents faculty from using more effective teaching methods.

And, there were the following themes observed from the open-ended questions:

- 8% said they were afraid they might get negative student evaluations.
- 4% said students don't want faculty to use different teaching methods.
- 2% said students demanded that faculty use sub-optimal methods.

H3 had mixed results. From the regression equation, we have the following result:

x9 = The more effective methods require more time

$$\beta = -0.155$$
 (Sig. = 0.010)

More time does not necessarily improve teaching effectiveness.

And, the open-ended question themes of:

29% stated they did not have enough time to use more effective teaching methods.

H4 had mixed results. From the regression equation, we have the following result:

x11 = The more effective teaching methods might be beyond the faculty member's level of understanding or ability

$$\beta$$
 = -0.105 (Sig. = 0.083)

The more effective teaching methods are within the faculty's ability.

And, the open-ended question theme of:

12% stated the more effective teaching methods were beyond their ability.

H5 was validated. The regression equation had the following result:

x8 = The class has too few students to use more effective methods

$$\beta = 0.219$$
 (Sig. = 0.000)

Small class size may help improve teaching effectiveness.

And, with respect to the schools, the open-ended question themes of:

- 6% said their classes were too large to use more effective teaching methods.
- 4% said there were insufficient resources available to develop and implement better teaching methods.

That is, availability of resources affects teaching effectiveness, where class size is a resource

Other Significant Results

Other significant results included faculty member's age, faculty member's education, the reward system, and the need for flexibility.

Faculty member's age:

x1 = The faculty member's age $\beta = 0.145$ (Sig. = 0.010)

Older more experienced faculty may be more effective teachers.

Faculty member's education:

x3 = The faculty member's highest level of education

$$\beta = 0.102$$
 (Sig. = 0.067)

Faculty with higher levels of education may be more effective.

The reward system:

Themes from open-ended questions:

- 5% said they did not use more effective teaching methods because they were not rewarded for it.
- 2% said the schools' demands to write scholarly referred journal articles used all their time preventing them from developing and using more effective teaching methods.

Other comments at end of survey:

14% indicated they did not care about teaching because it was not important for tenure.

The need for flexibility:

Themes from open-ended questions:

• 2% said there was a need for flexibility.

Other comments at end of survey:

• 47% indicated the importance of flexibility.

CONCLUSIONS AND IMPLICATIONS

There was a significant indication that accounting faculty do not use the most effective teaching methods available to them. Although the results indicated that faculty only considered themselves to not use the most effective teaching methods 36% of the time, they said that other faculty did not use the most effective teaching methods 63% of the time and since all faculty are other faculty to someone else, it seems reasonable to accept the higher amount, 63%, as a more reasonable approximation of the portion of faculty who do not use the most effective teaching methods. The important question then becomes why would they do so?

There is a reasonable indication that faculty may be using those teaching methods students want as opposed to what they need, because they want to keep the students happy in order to get good student teaching evaluations. Other reasons in order of significance would be the following: (a) insufficient time, (b) an apparent lack of concern by faculty, and (c) insufficient resources. Although the regression equation showed a slight indication (β = -0.155) that time was sufficient, the open-ended responses (29%) indicated significantly that there was insufficient time to use the most effective teaching methods.

Next, the apparent lack of concern by faculty, is it by the faculty member's own choice, or is it systemic? While the regression equation indicated that accounting faculty were capable (β = -0.105), the open-ended questions indicated the opposite (12%); one offsets the other. However, in the other comments at the end of the survey, 14% of the faculty indicated that that they did not care about teaching because it was not important for tenure, and in the open-ended questions the same thing was indicated (5%). Also in the open-ended questions, 18% of the faculty said they did not care; they used whatever was the easiest. These same faculty also said the administration was pressuring them use suboptimal methods (3%), and that time being used to write scholarly article was taking away from their teaching (2%). Combining all of these indicators, it seems that it is not that the faculty do not care, but that the system within which they must work in order to survive forces them to frequently choose duties other than teaching as a priority.

Insufficient resources confound the problem of faculty not using the most effective teaching methods. Large class sizes make it more difficult for faculty to use more effective teaching methods as supported by the regression equation ($\beta = 0.219$), and by the open-ended questions (6%), and by a general lack of funding for software and hardware as indicated in the literature, and the open-ended responses (4%).

The study also showed from the regression equation that that older, more experienced faculty, used more effective teaching methods ($\beta = 0.145$), and that more educated faculty are more effective ($\beta = 0.102$), and that there was a need for flexibility as indicated in the other comments (47%).

Whether one accepts that 36% or 63% of the faculty are not using the most effective teaching methods (or some other percentage between 36% and 63%), the reasons for such high percentages and the possible means of correcting such deficiencies are fertile ground for further research. Our students deserve the best education possible. Both 36% and 63% are too great.

Finally, this is a complex problem as is indicated by the relatively low R Square of 0.126 (Adjusted R Square = 0.107).

APPENDIX

Following are the correlations of 0.30 or more at the 0.95 level of significance or above using a Pearson two-tailed test:

- 0.699: Faculty member's age & Years of experience
- 0.664: The most effective way students learn is the same for all students &The most effective way teachers teach is the same for all teachers.
- 0.565: I always use those teaching methods I believe are the most effective. & Other faculty always use those teaching methods they believe are the most effective.

- 0.473: The fear of getting negative student evaluations prevents faculty from using more effective teaching methods. & Students demand that faculty members use teaching methods other than those the faculty member believes are the most effective.
- 0.405: The highest accounting degree where the faculty member teaches & The highest accreditation where the faculty member teaches
- 0.356: The more effective teaching methods require resources (technical equipment, etc.) not available at the school. & The more effective teaching methods might be too expensive for the students.
- 0.325: The more effective teaching methods require more time. & The more effective teaching methods might be beyond the faculty member's level of understanding or ability.
- 0.321: The more effective teaching methods might be beyond the student's level of understanding or ability. & Students demand that faculty members use teaching methods other than those the faculty member believes are the most effective.

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