Coding Manual

for Teaching Analysis Polls



Universität Regensburg

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Preface to first English edition

In 2008, the University of Regensburg implemented Teaching Analysis Poll (TAP) as a qualitative method for mid-term course evaluation. This method is easy-to-handle and provides valuable feedback regarding course components that foster and hinder student learning process. However, it turned out that there might be a lack of objectivity and reliability as the analysis and interpretation of the data depends solely on the person who conducts the TAP.

To contribute to overcoming these shortcomings, a coding system was developed (Hawelka, 2017). This system has its theoretical foundation in different established evaluation questionnaires as well as in a model of the student learning process. It is proven to be a reliable instrument which provides lecturers with structured feedback on the one hand and allows to make use of the data for educational research on the other (Hawelka & Hiltmann, 2018a).

Many talks and discussions with national and international colleagues indicated that it might be interesting to have an English version of this system that supports the coding of feedback which is collected in courses delivered in English.

This manual is a first draft of an English manual for coding TAP-data. It is almost a pure translation of the German version, but the examples for student feedback are taken from real-life TAPs of the University of Virginia and English-spoken courses at the University of Regensburg. The only modification concerns the number of categories: As in 32 English examples no feedback on the "intended learning outcomes" could be found, this category was dropped out. The quality criteria of this edition are not tested in international contexts yet, so they might differ from those reported in the German version (Hawelka & Hiltmann, 2018a).

The manual follows a simple structure:

Part A explains the procedure of Teaching Analysis Poll as it is carried out at the University of Regensburg. Part B describes the coding agenda. It gives explicit definitions, examples, and coding rules for each category, determining under what circumstances each item of feedback should be coded with a category (Mayring, 2000).

Acknowledgement

There are many ideas in this manual that came about through discussing with colleagues. Most of all I want to thank my workmate Stephanie Hiltmann. She has spent lots of time giving constructive and crucial feedback about every single category.

Especially for this English edition I would like to thank Dorothe Bach (University of Virginia). During a study visit at the University of Regensburg in 2008, she made me familiar with the method of Teaching Analysis Poll. Many years later, she significantly contributed to the English version by providing real-life examples of feedback from her own, considerable evaluation experience.

Finally, I thank Liam Pollock who proofread this edition patiently and helpfully.

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Part A 1

Part A

Teaching Analysis Poll (TAP) as a qualitative evaluation technique

Since the late 1960's student evaluation of teaching has become an increasingly important part of the Universities' quality assurance. This evaluation serves many purposes, including measuring the teaching effectiveness or collecting feedback for teaching improvement. It is a common method to use questionnaires to rate different characteristics of teachers and courses on a Likert-Scale (Murray, 2005).

Although this form of evaluation is widespread, there is also a lively discussion about the limitations of this quantitative procedure. A frequent complaint from teachers is the lack of a "comprehensive framework that provides information on performance with appropriate support for teachers" (Penny & Coe, 2004, p. 215). Thus, many authors propose to look for alternative ways of evaluating teaching. Teaching Analysis Poll (TAP) is a qualitative evaluation technique that has the potential to remedy some of the shortcomings of the traditional evaluation system. It has proven to be an effective method for mid-term evaluation and, in contrast to many other qualitative methods, TAP is easy to handle (Frank, Fröhlich & Lahm, 2011). Figure 1 outlines the steps of this method.

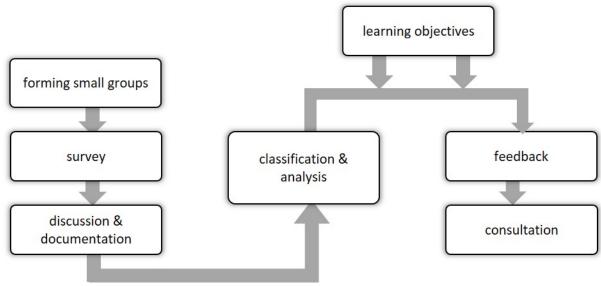


Figure 1 Procedure of Teaching Analysis Poll

Step 1: Information about the course objectives

Feedback can only be interpreted against the background of the respective learning objectives. Hence, at the University of Regensburg lecturers are asked to provide information about the course objectives before the evaluation process begins.

Step 2: Forming small groups

TAP is conducted as a moderated group discussion. The lecturer ends the session 20 minutes before time, leaves the room and an external evaluator conducts the evaluation. The students form small groups of about three to seven people. A total of three to five groups is adequate to reach a certain *level of saturation*, a higher number of groups for collecting data will not generate a higher amount of significant information (Morgan, 2009). Therefore, in very big lectures it seems to be sufficient to take a random sample of five student groups.

Part A 2

Step 3: Survey

The students are asked to comment on only two open questions:

- 1) Which aspects of classroom teaching facilitate your learning process?
- 2) Which aspects impede your learning on this course?

Step 4: Discussion and Documentation

In small-groups, the students discuss these questions and record their results in writing. Subsequently the evaluator collects their arguments and discusses them with the whole class.

Within this step, the evaluator is faced with two tasks that contribute to a systematic analysis of student feedback:

a) Feedback interpretation: ambiguous and misleading statements are clarified and are translated into didactic terms. For example, the feedback "only student presentations" could be interpreted in at least two different ways: (1) the students rate the design of the course as boring, as the only didactic method are student presentations. (2) The students would like to have more input and explanations by the lecturer, not only by their fellow students.

In this example, the moderator's inquiry revealed that the students complain a lack of input by the lecturer. The result of this interpretation is documented by the moderator (see figure 2).

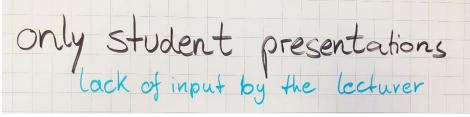


Figure 2 Interpretation of feedback

b) Defining the coding units: generally, one student statement is one coding unit (e.g. "only student presentations"). In many cases, the students mention two or more aspects in one statement, however. Thus, it is the moderator's task to clarify whether the feedback has only one single facet or concerns different issues. The example shown in figure 3 illustrates this point.



Figure 3 Example of how coding units are defined

The students gave as feedback "The lecturer is always friendly and helpful" and only by inquiring it did become clear that the students aimed to address two different topics. (1) The lecturer shows a friendly attitude towards the students and (2) the lecturer gives helpful advice to master the assignments. Thus, the moderator marked two different coding units by a short dividing line.

Part A 3

Step 5: Classification & Data analysis

The classification and data analysis is carried out after the course. By means of the coding manual, the coding units (student feedback) are transferred to the coding system and thereby arranged by didactic criteria.

Subsequently, the feedback is analysed and interpreted against the intended learning outcomes. This is quite an important step, as students may interpret their perception in a slightly different way than a didactic expert does.

Step 6: Feedback

The lecturers receive the feedback in an anonymized report by e-mail. Due to the systematic order of the coding system, the lecturers get the results sorted by a didactic structure that helps them to get a general idea about the strengths and shortcomings of their courses.

Step 7: Consultation

During a follow-up meeting, the lecturer and evaluator work together to develop ideas for responding to the feedback and developing the course. This "consultative feedback" (Penny & Coe, 2004) has proven to be an effective way to improve teaching effectiveness.

Part B 4

Part B

Table 1 gives an overview on the categories used to analyze and structure the feedback of TAP.

Table 1 Categories and subcategories

Category	Subcategory
1 Interaction	1.1 Presentation1.2 Student involvement1.3 Classroom management
2 Task understanding	
3 Motivational regulation	3.1 Autonomy3.2 Perceived competence3.3 Relatedness3.4 Lecturer's interest and commitment3.5 Interestingness and relevance
4 Cognitive learning strategies	4.1 Rehearsal4.2 Organization4.3 Elaboration4.4 Critical thinking
5 Regulation of learning	5.1 Planning and structure5.2 Monitoring learning progress5.3 Adaptive teaching
6 Resources	6.1 Consultation 6.2 Learning and reading materials
7 Overall rating	
8 General framework	

At the University of Regensburg, data that are analyzed to provide lecturers with reliable and structured feedback (and not for research projects) are coded only at category level. This procedure turned out to be sufficient to provide the lecturers with intelligible and helpful feedback (Hawelka & Hiltmann, 2018b).

1 Interaction

1.1 Intelligible and Stimulating Presentation

Lecturers use adequate rhetoric and visual means to present the learning material in an intelligible and stimulating way.

Coded in this category

- Intelligibility and variability of talks and presentations (concerning also student presentations)
- Clear explanations
- Use of media and materials to visualize learning material
- Enhancement of the lessons with humour

Examples of students' feedback

what most fosters learning

- putting major ideas up on chalkboard
- PowerPoints are very clear and super organized
- neat handwriting
- presentation with media examples
- Prof is good at explaining things
- Lecturer frames things in an accessible language
- Helpful graphs and diagrams in class
- Diversifying the presentation of info verbal, visual

what most impedes learning

- Fast run through of PowerPoints
- Simplify course language so that it is more easily understood
- Reads directly off the slides
- Really long power points that we'll never get through in class
- too much information on the slides makes listening difficult
- difficult to hear, especially from back of room
- speaking pace is too fast
- Unfocused lectures
- lectures are dry

- Lecturer takes time for student concerns outside the course ⇒ (6.1) Consultation
- Quality of media and material for self-study outside the course

 ⇔ (6.2) Learning and reading material
- Pace of proceedings ⇒ (3.2) Perceived competence

1.2 Student Involvement

The time allotted for lecturing on the one hand and discussion with and among students on the other hand is well-balanced. The teacher fosters communicative and interactive learning activities. Students are encouraged to participate in classroom interaction and are invited to share their ideas and knowledge.

Coded in this category

- Students take part actively by communicative and interactive modes of working, e.g. discussions or groupwork.
- Classroom interaction is moderated in a productive way.
- Students are encouraged to ask questions
- Students get meaningful answers

Examples of students' feedback

what most fosters learning

- working with peers
- Good balance of talking and slides
- good at answering questions
- Small group discussion
- ① Questions to encourage good discussion
- Interactive talking with professors
- He never tells a student that s/he has a dumb idea
- Encourages questions
- validates all student responses, which encourages participation

what most impedes learning

- Not enough structure in discussion
- Discussion can be too tentative to go into deeper
- Sometimes discussions get stuck on one topic
- Lack of class engagement
- Pointless groupwork
- more group work would be useful
- Not coming to a conclusion during discussion
- Too much off-topic discussion by peers
- Lack of purpose in discussion

- Lecturer creates a cooperative learning atmosphere ⇒ (3.3) Relatedness
- Lecturer gives constructive feedback ⇒ (3.2) Perceived competence

1.3 Classroom Management

The teacher leads the course in a way that enables effective and undisturbed learning. The course is well organized.

Coded in this category

- Time-management: punctuality, scheduling of different learning phases, breaks
- Teacher behaves in a confident manner
- Learning in this course is not disturbed by chatting or noise

Examples of students' feedback

what most fosters learning

- Prof is always punctual
- Prof encourages silence during lecture
- Break after 30 min
- Students have ample time to complete the quizzes in classrom

what most impedes learning

- Constant murmuring from other students
- Lessons are poorly organized
- Not enough time in class to finish in class activities
- Pacing of the class

- Discussions are lead productively ⇒ (1.2) Student involvement

2 Task Understanding

The students know what they are expected to learn. They also know different ways to reach the intended learning outcomes.

Coded in this category

- Intended learning outcomes are clearly communicated
- Prompts elicits adequate learning activities
- Problem-solving is modelled by the teacher (or by fellow students)
- The teacher gives advice for effective learning

Examples of students' feedback

what most fosters learning

- explains in class expectations for assignments
- Teacher is modelling strategies in class
- ① Communication of goals for class
- Examples for assignment
- Give us guiding questions
- Live Coding in class

what most impedes learning

assignments are not reflected by the syllabus

8

- Lack of clarity with expectations
- Lack of communication about goals for class
- Not always providing models
- unclear grading criteria
- Unclear homework questions
- Writing guidelines can sometimes be too vague
- He has so much wisdom to share and as much as we like learning from each other, we want to hear more of his thoughts

- Student presentations are comprehensible ⇒ (1.1) Intelligible and stimulating presentation
- Students get the opportunity to discuss subject matter ⇒ (1.2) Student involvement

3 Motivational Regulation

3.1 Autonomy

Students are allowed to operate with some degree of independence.

Coded in this category

- Students are allowed to contribute their own ideas and interests
- Students get the opportunity to solve problems in an autonomous way.
- Students are allowed to decide what detailed knowledge to learn and choose specific activities, methods or resources for learning

Examples of students' feedback

what most fosters learning

- Working with our own data, own learning
- The workbooks provide us with the opportunity to research what is happening in our school, research the data, etc. that allow us to discover problems
- Fosters independent working on the project
- accepting all project contributions

what most impedes learning

 we don't get a choice in choosing a presentation topic

Not coded in this category

• Compulsory attendance ⇒ (8) General framework

3.2 Perceived Competence

The lecturers enhance students' perceived competence by giving constructive feedback and by choosing tasks that are suitable to students' level of capabilities.

Coded in this category

- Good performance is rewarded (praise)
- Level of difficulty and amount of tasks are adequate
- Workload to achieve the intended learning outcomes is appropriate
- Pace of proceedings

Examples of students' feedback

what most fosters learning

- Assignments are not too difficult
- Feedback is very motivating
- on-going and constructive feedback
- Feedback is always fair
- Lectures are well-paced

what most impedes learning

- We feel that we should know more than we do
- High volume and diversity of weekly assignments
- Lectures hard to follow
- Assumes prior knowledge that is a bit unfair
- Expectation for very quick understanding

Not coded in this category

• speaking pace is too fast ⇒ (1.1) Intelligible and stimulating presentation

3.3 Relatedness

The teacher fosters friendly and respectful contact with the students. He or she creates a comfortable and cooperative learning atmosphere.

Coded in this category

- The teacher is friendly and approachable
- The teacher is cooperative and open to criticism
- The students feel welcome and integrated in a learning community

Examples of students' feedback

what most fosters learning

- Personality is open and friendly
- personable and approachable professor
- Positive in class environment
- Prof makes students feel like he really values our presence
- Openness of class
- Comfortable, informal setting
- Very responsive, takes feedback and implements
- we feel comfortable expressing parts we did not understand
- Remembers details about our lives

what most impedes learning

- Prof is sometimes moody
- students are afraid to give their opinions
- not taking student feedback

3.4 Lecturers' Interest and Commitment

The teacher shows personal interest in the subject matter and is motivated in teaching.

Coded in this category

- The teacher is enthusiastic about teaching the course
- The teacher shows interest in the subject matter
- The teacher cares for the students

Examples of students' feedback

what most fosters learning

- ① Lots of enthusiasm and passion
- ① She is always excited to teach
- Her enthusiasm for the subject
- Professor makes clear he wants to help students succeed
- Professor really cares

what most impedes learning

Lack of energy during lecture

- Students are interested in the topic ⇒ (3.5) Interestingness and relevance
- Lecturer is always punctual ⇒ (1.3) Classroom management

3.5 Interestingness and Relevance

The teacher is able to awaken interest for the subject matter. He or she manages to attract and hold students' attention.

Coded in this category

- The chosen topics match students' interests.
- The importance and relevance of the subject matter becomes clear.
- Topics are presented in an unusual, exciting, or diversified way.

Examples of students' feedback

what most fosters learning

- Mix of learning styles / techniques
- lectures keep students focused
- interesting topics
- We have a personal investment in the topic
- The tools that we are given are relevant to our future roles as school leaders
- Shows why we should be interested in what they are doing
- variety of resources

what most impedes learning

- class content does not feel meaningful
- o no connection to practical application
- Every lecture is structured the same
- Not understanding the real-world applications to what is learned in class

- The teacher shows interest in the subject matter ⇒ (3.4) Lecturer's interest and commitment
- providing examples of real life situations ⇒ (4.3) Elaboration

4 Cognitive Learning Strategies

4.1 Rehearsal

Facts and theories are recapitulated to facilitate memorization.

Coded in this category

• Teacher takes time to repeat important issues

Examples of students' feedback

what most fosters learning

- Reviews at beginning of class
- Review sessions
- ① Repetition

what most impedes learning

- We should review key material

Not coded in this category

• Summary of key concepts at the end of a lesson ⇒ (4.2) Organization

4.2 Organization

Main aspects are summarized and emphasized. Students are supported to get an overview of key concepts.

Coded in this category

- Summary of key concepts
- Emphasis of important points

Examples of students' feedback

what most fosters learning

- key concepts are outlined
- Emphasize main points
- ① Summarizes at end of lecture
- Synopsis after lecture
- Reflect on what was done in class

what most impedes learning

- Lack of reflection at the end of class
- Missing a "big picture"

- Lessons are well organized ⇒ (1.3) Classroom management
- Structure of the course ⇒ (5.1) Planning and structure

4.3 Elaboration

New concepts are connected to already known topics. Students are supported in developing ideas by incorporating new information to augment their existing knowledge.

Coded in this category

- Relevant connections to similar topics and everyday knowledge are created
- Connection of topics becomes clear
- Content is illustrated by examples

Examples of students' feedback

what most fosters learning

- case studies as a learning tool
- connecting material with past/other content
- Diversity of perspectives
- Gives class time for practice of concepts
- showing how conceptual ideas apply to problems
- Embracing perspectives form different disciplines
- Diversity of perspectives
- providing examples to real life situations

what most impedes learning

- Lack of examples
- Working through examples too quickly
- More explanation on the connections of topics

- Students understand the relevance of the topic ⇒ (3.5) Interestingness and relevance
- Clear structure of lessons ⇒ (5.1) Planning and structure

4.4 Critical Thinking

The teacher motivates students to think critically and independently about the learning content.

Coded in this category

The teacher motivates students to critically analyze the learning content.

Examples of students' feedback

what most fosters learning

- Helps us think outside the box
- We are encouraged to think critically and question our assumptions
- she challenges us

what most impedes learning

 No diversity of perspectives, only one point of view

Not coded in this category

Lecturer is open to criticism ⇒ (3.3) Relatedness

5 Regulation of Learning

5.1 Planning and Structure

The course follows a clear syllabus, the lectures are prepared carefully. Breadth and depth of learning help students to reach the intended learning outcomes.

Coded in this category

- Breadth and depth of learning
- Structure and planning of the course

Examples of students' feedback

what most fosters learning

- Structure of syllabus is excellent
- Clear and thorough syllabus
- ① Clear time line for entire semester
- Prof is always well-prepared

what most impedes learning

- Amount of work given the amount of time
- ☐ lack of structure/organization
- constantly changing syllabus
- class content is too broad/theoretical
- O More structure.

- Lessons are poorly organized ⇒ (1.3) Classroom management
- Students get an overview of key concepts ⇒ (4.2) Organization

5.2 Monitoring Learning Progress

The teacher supports the students in monitoring their learning progress by feedback, formative assessment, and similar strategies.

Coded in this category

- The lecturer provides the students with useful feedback about their performance.
- Students get feedback from their peers.
- Student have the opportunity to identify gaps in their knowledge and abilities, and to track their own progress through self-assessment.

Examples of students' feedback

what most fosters learning

- Individualized and actionable feedback
- Professor checking for cues that we understand the material
- Timely and on-going feedback
- Gauges the class to make sure we understand
- feedback is helpful
- ① In-class progress checks
- Quizzes with feedback

what most impedes learning

- Lack of feedback on assignments, discussion (where do we stand)
- doesn't spend time making sure we understand the concepts
- Feedback is not helpful

- Feedback is motivating ⇒ (3.2) Perceived competence
- Teacher gives advice for effective learning ⇒ (2) Task understanding

5.3 Adaptive Teaching

The lecturer provides learning experiences that address the unique needs of the learning group. He or she reacts flexibly to difficulties in understanding by adapting pathways or resources according to the students' needs.

Coded in this category

- The teacher asks regularly about difficulties in learning or comprehension.
- The lecturer reacts to difficulties in learning or comprehension.
- The lecturer considers students' heterogeneous knowledge base.

Examples of students' feedback

what most fosters learning

- Professor addresses unanswered questions from previous lecture
- Professor is flexible willing to make changes to benefit students
- Willing to review material when we have questions

what most impedes learning

Unfortunately no changes made after the first test

- Lecturer's explanations are easy to understand ⇒ (1.1) Intelligible and stimulating presentation
- Lecturer asks for feedback and uses it ⇒ (3.3) Relatedness
- Students are encouraged to ask questions ⇒ (1.2) Student involvement

6. Resources

6.1 Consultation

The lecturer is accessible for questions and problems, including outside of the scheduled course times.

Coded in this category

 The teacher is receptive to students' concerns and provides his or her expertise, also outside of the scheduled course times.

Examples of students' feedback

what most fosters learning

- Professor is very accessible
- Professor holds extra office hours and Skype sessions
- Professor is always helpful and attentive to e-mails
- She is available for questions and issues in and out class

what most impedes learning

- Lack of email responses
- Difficult to find meeting time
- Office hours are not helpful

- The lecturer is open and friendly ⇒ (3.3) Relatedness
- Students get meaningful answers (during the lesson) ⇒ (1.2) Student involvement

6.2 Learning and Reading Material

The lecturer provides helpful learning resources for self-study.

Coded in this category

- Providing reading material and/or exercises for self-study
- Enrichment of the course by e-learning material

Examples of students' feedback

what most fosters learning

- We enjoy the assignments/homework
- Quality of texts
- We're given extra course-related material
- relevant and insightful readings
- Textbook is great
- Recordings of lectures
- Resources are accessible online
- ① Digestible readings, not too long

what most impedes learning

- A lot of reading for amount we meet
- Readings don't match with the discussion
- Research papers too long
- Density of material can be challenging
- Confusing readings
- Unfortunately no slides posted

Not coded in this category

Use of media and materials for presentations during lessons

 ⇒ (1.1) Intelligable and stimulating presentation

7 Overall Rating

This category includes all global feedback about the course, the lecturer, and learning outcomes.

Coded in this category

- Overall rating of the course
- Professors' didactic and professional skills
- Students' self-evaluation of learning progress

Examples of students' feedback

what most fosters learning

what most impedes learning

⊙ ----

- Great guest speakers
- ① Extensive knowledge of the material
- Look forward to this class
- Fabulous, funky, fresh
- Professor's expertise
- She is a good facilitator
- Prof shows deep understanding

Not coded in this category

• Level of interest in the topics ⇒ (3.5) Interestingness and relevance

8 General Framework

This category includes the organizational and curricular framework of the course.

Coded in this category

- Time and location of the course
- Type of course
- Student to teacher ratio
- Awarded credits
- Assessment

Examples of students' feedback

what most fosters learning

- The fact that we are in a small setting
- ① Layout of classroom
- Time of day
- Good exam format

what most impedes learning

- Due date time (Friday AM) is too early
- Compulsory attendance

Not coded in this category

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