Teacher Education Accreditation Council

TEAC Exercise Workbook

Writing the *Inquiry Brief* and *Inquiry Brief Proposal*

This workbook is about producing the *Inquiry Brief* or *Inquiry Brief Proposal* for TEAC accreditation. It is designed as a companion to the TEAC *Guide to Accreditation*. The exercises in this workbook are selected by the writing workshop presenters to help program faculty get started on their *Brief*. Through a series of exercises, the workbook is built on the steps TEAC recommends for producing the *Brief* and is designed for use in TEAC's workshops and on campus with faculty groups who are working to develop an *Inquiry Brief* or *Inquiry Brief Proposal*.

Accreditation of teacher education
through the audit of evidence
of student achievement

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Overview of TEAC accreditation

In the TEAC accreditation process, the program's self-study document is either an *Inquiry Brief* (for those pursuing *accreditation* status) or an *Inquiry Brief Proposal* (for those pursuing *initial accreditation* status). TEAC accredits a program on the basis of its evidence that it produces graduates who are competent, caring, and qualified educators, and that the program has the capacity to offer a quality program. The program presents this evidence in the *Brief*.

The whole point of the TEAC accreditation process is to test the claims that the program faculty makes in its *Inquiry Brief* or *Inquiry Brief Proposal*. TEAC verifies the evidence presented in the *Inquiry Brief* and evaluates whether or not the evidence supports the program's claim that it prepares competent, caring, and qualified educators. The quality of evidence and the quality of the system that produced it are the two key factors in the TEAC accreditation decision. In the case of the *Inquiry Brief Proposal,* TEAC verifies the evidence of the program's capacity and plan to produce an *Inquiry Brief* with evidence beyond what was required for state program approval.

The *Brief* is, in essence, a research monograph (or, in the case of the *Inquiry Brief Proposal*, a plan for such a monograph), and should be focused on what the program faculty wants and needs to know about the program's performance. It should run about 50 pages, and it should be based primarily on existing documents, such as reports of ongoing inquiry, other accreditation reports, and institutional research reports prepared for internal and external audiences.

The *Inquiry Brief* or *Inquiry Brief Proposal* should be meaningful to the program and contain information necessary to properly and responsibly administer and improve the program. It should be *brief*, and it should be about *inquiry.* Producing the *Brief* should be a seamless part of the program faculty's normal, collective activity to improve the program.

The program faculty members should work together to produce the *Brief*. All faculty members of the program options represented in the *Brief* should contribute to the process, and TEAC requires that faculty members in the program review and approve the final *Brief* before it is submitted for audit.

TEAC reviews drafts of the *Brief* and works with the program faculty, providing feedback and guidance, until the *Brief* is accepted for audit.

The time it takes a program faculty to prepare a *Brief* varies, depending on local circumstances, such a program structure, available documentation, state context, and the institution's commitment to the process. Generally, it takes the same amount of time as needed to produce a solid research article.

To produce the *Brief*, TEAC recommends that program faculty follow the steps described below in the "Guidelines for producing the *Brief*." In doing so, the faculty members will develop a comprehensive understanding of their program necessary to writing the *Brief*. They will also be well-prepared for the audit.

Content of the *Inquiry Brief* and *Inquiry Brief Proposal*

The *Inquiry Brief*

To be accredited, an eligible program submits a research monograph, called an *Inquiry Brief*, in which the faculty and administrators present the evidence supporting their claims that their program satisfies TEAC's three quality principles:

1. Evidence of their students' achievement and that their interpretation of their assessments of student achievement is valid,
2. Evidence that the program monitors quality and systematically engages in continuous improvement that is based in part on information about its students' learning, and
3. Evidence of the program's capacity for quality.

Through the *Inquiry Brief*, the program faculty members present qualitative and/or quantitative evidence that their graduates are competent, qualified, and caring and that the institution has the capacity to offer a quality program.

The program faculty members document the evidence they possess about what their graduates have learned, the validity of their interpretations of the assessment of that learning, and the basis on which the program faculty makes its decisions to improve its program. To do this, the faculty members must show that they have a valid method for determining what their students have learned and accomplished. Then they must show that their students have learned the subject matter they will teach, the pedagogical subject matters of the field of education, and, most important, that their students can teach effectively and caringly.

The faculty members must also show that they use what they learn about their students' learning to improve both the program and the system they have in place for monitoring and ensuring the quality of the program. Finally, they must show that they have plans to undertake a systematic inquiry into the factors that affect the quality of the program and their students' accomplishments.

The *Inquiry Brief* focuses on what the program faculty wants and needs to know about the program's performance. It includes the claims a faculty makes about its graduates' knowledge and skill, a rationale for the assessments of those claims, the empirical basis of the validity of the evidence that is presented to support the claims, the findings related to the claims, and a discussion of what the evidence means and what has been learned from it. In addition, the *Inquiry Brief* reports on the faculty's efforts to evaluate the rigor of its own quality control system and the adequacy of the program's capacity to offer a quality program.

Based primarily on existing documents, the *Inquiry Brief* contains only information and analysis relevant to the case that the program prepares competent, caring, and qualified professionals.

The *Inquiry Brief Proposal*

Faculty members representing new programs, or programs that are in the process of collecting evidence for their claims beyond what they cite for state program approval, may submit for initial accreditation status an *Inquiry Brief Proposal*, in which they propose the *method* by which they will investigate the outcomes of their program and show that their graduates are competent, qualified, and caring, and that the program meets TEAC's three quality principles.

The *Inquiry Brief Proposal* is appropriate for new programs or programs that have been significantly revised in recent years. The program faculty members in these cases may not yet have sufficient recent evidence that meets a scholarly standards for their claims of student accomplishment, but they do have evidence in other areas. They have evidence of their capacity for program quality, evidence of a sound quality control system, evidence that the institution is committed to the program, and a plan for acquiring evidence over time to support their claims.

The *Inquiry Brief Proposal* is a research proposal, a scholarly work like a grant or dissertation proposal, in which the program faculty members propose the method by which they will find evidence (qualitative, quantitative, or both) to demonstrate at a research standard level that the program's graduates are competent, qualified, and caring. The program faculty members also present the evidence they used to achieve state program approval and demonstrate that they have a reasonable basis for thinking (1) that the program's students have learned the subject matters they will teach; (2) that the students have solid pedagogical knowledge; and (3) that the students can teach effectively in a caring manner. In addition, the program faculty members provide a rationale for their assessments that explains why the faculty members think the assessments are reliable and valid and that the criterion for success for each is appropriate.

Most importantly, the faculty members also show how they will use what they learn about their students' learning to improve both the program and the system they have in place for monitoring and ensuring the quality of the program. In addition, they present their plans to undertake a systematic inquiry into the factors that affect the quality of the program and their students' accomplishments. Finally, they also provide evidence that the institution has the capacity to offer a quality program.

Like the *Inquiry Brief*, the *Inquiry Brief Proposal* is based primarily on existing documents, such as reports of ongoing inquiry, other accrediting and state review reports, and institutional research and publications. It contains only information and analysis relevant to the case that the program will be able to bring forward evidence that it prepares competent, caring, and qualified professionals. The *Inquiry Brief Proposal* is also about 50 pages.

Guidelines for producing the *Brief**

TEAC recommends that program faculty follow these steps to produce the *Brief*.

1. **Review**. Study and understand the TEAC process and requirements. Know the requirements for the three quality principles and the required components of the *Brief*. Study the *Guide to TEAC Accreditation* and navigate the website (www.teac.org) for the most up-to-date information. Also review state standards and protocols as appropriate, especially for those states with which TEAC has a partnership agreement. When in doubt, ask TEAC staff (teac@teac.org).

2. **Gather information and prepare appendices**. Invest time in examining the program thoroughly. We suggest that the program faculty gather and review all required information about the program, specifically — and in this order, from least to most complex — the information that will eventually appear in the program overview, the program requirements (Appendix D), the faculty qualifications (Appendix C), copies of any local instruments and rubrics used to assess candidate knowledge and skills (Appendix F), and the program's capacity (Appendix B). It would be appropriate to assemble and draft these appendices as the second step.

3. **Inventory available measures**. Continuing the examination of the program, the program faculty should examine the inventory of evidence in the field (Appendix E), noting what evidence the program relies on, what it does not, and what it might collect in the future. Once faculty has formulated claims, it may need to revisit Appendix E to identify evidence it considers irrelevant to its claims.

4. **Conduct an internal audit**. Next, the program faculty should describe its quality control system, conduct an internal audit of the system, and draft an internal audit report (Appendix A).

5. **Take stock**. TEAC suggests that the program faculty now meet together to review what they have learned about their program from steps 1–4.

6. **Formulate claims**. Draft a set of statements that makes clear what the faculty believes the program accomplishes with regard to TEAC's *Quality Principle I* (graduates know their subject matter, have pedagogical knowledge, and have caring and effective teaching skills). These statements can be unique to the program and are often aligned with state or national standards. They must be consistent with any other public statement of the program's claims and be linked to the program's assessments.

7. **Draft the *Brief***. Analyze and interpret the results of the assessments identified in Appendix E, develop the case, and assemble a draft *Brief*. Review the draft, using the two checklists (at the end of Tab 1) for programs and formative evaluators. Submit a draft to TEAC.

*The word *Brief* is used to refer to both the *Inquiry Brief* and the *Inquiry Brief Proposal*.

Checklist for preparing the *Brief*

1. Review	Done!	Date
TEAC's principles and requirements		
State & professional association standards		
TEAC's accreditation process		
TEAC's requirements for content of the *Brief*		

2. Gather information	Done!	Date
Program overview		
Alignment of program requirements with *Quality Principle I* and state and national standards (Appendix D)		
Program faculty qualifications (Appendix C)		
Program capacity (Appendix B)		
Collect copies of all local assessments (Appendix F)		

3. Inventory available measures	Done!	Date
Study the evidence available in the field pertaining to the graduates' learning, note what evidence the faculty relies on currently, what it does not, and what it might collect in the future (Appendix E)		
Assemble a list of the program's assessments and explain how and why the program uses them (rationale)		
Add any newly developed instruments to Appendix F		
Determine the program's standard for the sufficiency of evidence of graduates' learning that would support claims for *Quality Principle* (e.g., what are the cut scores?)		

4. Conduct an internal audit	Done!	Date
Describe the program's quality control system and conduct an internal audit		
Draft the internal audit report (Appendix A)		

5. Take stock	Done!	Date
Review all materials and findings to date		

6. Formulate claims	Done!	Date
Write your claims and align claims with evidence for them		
Check consistency of your claims with your published public claims		

7. Draft *Brief*	Done!	Date
Study the results of the assessments cited in Appendix E, and formulate the program's interpretation of the meaning of the results of the assessments		
Compare draft against checklists for program and formative Evaluators		
Submit a draft to TEAC		

TEAC resources

TEAC offers the following print and electronic resources and guidance:

Website. TEAC's website (www.teac.org) is a comprehensive and up-to-date guide to TEAC, the accreditation process, and membership. Check the TEAC website regularly for updates on policies and procedures, announcements about events and members. TEAC members receive periodic email announcements. The website has a feature that encourages members and others to make suggestions and comments about TEAC.

Publications

Teacher Education Accreditation Council. A short introduction to TEAC, including the accreditation process and principles and standards. ©2009

Guide to Accreditation. A comprehensive guide for the faculty, staff, and administrators of TEAC member programs preparing for initial and continuing education. The guide includes a full description of TEAC's principles and standards; the accreditation process, including the audit; and detailed instructions on writing the *Brief*. ©2010 [Two copies are sent to each program as a benefit of membership.]

Guide to the TEAC Audit. A comprehensive guide to the audit process, including responsibilities of the program, TEAC staff, and auditors. Includes a checklist for tracking the audit process. ©2010 [One copy is sent to each program when the *Brief* is declared auditable.]

TEAC brochure. A brief, succinct description of TEAC and its quality principles, available on request to programs for use in informing campus leaders and others in advance of the audit. Three-panel brochure [size of a #10 business envelope] © 2009

TEAC Operations Policy Manual. A convenient reference for all TEAC members, staff, and auditors, board of directors, and members of the Accreditation Panel, this manual describes all of TEAC's current policies and procedures. ©2010

Guidance and feedback

TEAC provides a staff liaison to assist the candidate programs while the faculty members are writing and editing the *Brief*, offering feedback on methodological design, statistical analysis, and interpretations of evidence. TEAC funds this service from the audit fees all programs pay in the year of their audits.

To further guide members in their process, TEAC offers a variety of additional formative evaluation services. Contact TEAC for the cost of these services:

1. On request, TEAC can provide tailored workshops on-site for a program or group of programs (such as a sector- or state-based consortium).
2. TEAC can provide individual consultation for program representatives in TEAC's offices.
3. In rare cases where a program requires or desires more help than workshops or the staff liaison can provide, TEAC can provide consultants on an individually negotiated cost basis.

Outline for a typical TEAC *Brief*

1. Program overview
Overall logic: guiding philosophy and orientation of the program
Program areas, levels, specialties, and options
Brief history of the program
Program demographics
Table of enrollment trends, numbers and types of students, numbers of faculty and types, etc.

2. Claims and Rationale
Statement of the claims (consistent with all relevant claims in the program's literature)
Reasons why the program thinks its assessments are valid and that the passing scores are appropriate

3. Method of assessment
Detailed description of the assessments
Criteria for achievement or success
Published information about the reliability and validity of the assessments
Arguments for the content validity of the assessments
Sampling procedure and procurement of evidence

4. Results
Results of the investigation into the reliability and validity of the assessments
Evidence of stability and consistency of the measures
Evidence of relationship, convergence, triangulation with other measures or evidence
Results of the assessments with attention to the following issues:
a. Significant digits
b. Ranges of the scores and their variance
c. Disaggregation of evidence
d. Accurate and comprehensive table headings
e. Sensitivity to insignificant differences
f. Full disclosure of available evidence (all of the program's cited evidence); See Appendix E.
g. Evidence for each claim

5. Discussion and Plan
Discussion
Meaning of the results: Were the claims supported?
Were the results good news or bad news?
Implications of the results for the program's design

Plan
Steps to be taken based on the evidence: modifications to the program, quality control system (QCS), plans for inquiry into the factors responsible for the results.

6. References
A list of any works cited in the *Brief*.

7. Appendices
Appendix A: Internal audit report
Introduction: Auditors; faculty approval
Description: Schematic and mechanisms of QCS
Procedure: Audit plan and trail
Findings: Discoveries about the QCS
Conclusions: How well does QCS work?
Discussion: Needed modifications in QCS or future audit procedures

Appendix B: Capacity
Evidence that the program is supported on a par with other programs at the institution
Evidence that the program's capacity is sufficient and adequate to satisfy

Appendix C: Qualifications of the faculty
Current academic rank and title
Terminal degree, institution, field, and date
Number of years of service
Scholarly publications (number, type)
Assigned courses in the program
Awards, public school teaching, boards

Appendix D: Program requirements
Admissions requirements
Course requirements and standards
Course titles and descriptions
Program standards and requirements
Graduation requirements
State license requirements
Table of alignment of program option requirements with state and national standards

Appendix E: Full disclosure of all relevant and available evidence (including any evidence cited elsewhere in support of, or about, the program)
a. Grades
b. Standardized tests (entrance, exit, and license) about the graduates or the graduates' own students
c. Surveys of students, alumni, employers
d. Ratings of portfolios, work samples, cases
e. Basis for rates: hiring/promotion, certification, graduate study, professional awards, publications, etc.
f. Reasons for neglecting or rejecting certain categories of evidence
g. Plan for inclusion of new categories of evidence in a subsequent *Inquiry Brief*

Appendix F: copies of locally developed assessment instruments cited in the Brief

Appendix G: status of educator programs accredited by other USDE or CHEA recognized accreditors

Organizing the *Brief*

Within the TEAC system there is always considerable latitude in how the program faculty will make its case and what kinds of quantitative and/or qualitative evidence it will bring forth to support the case that it has fulfilled the requirements of TEAC's system of accreditation.

Most program faculty chooses to organize the *Brief* as a research article or monograph.

Recommended article or monograph format

1. Program overview
2. Claims and rationale for the assessments
3. Method of assessing
4. Results
5. Discussion of results
6. References
7. Appendices
    - A. Internal audit of quality control system
    - B. Capacity for quality
    - C. Qualifications of the program faculty
    - D. Program requirements linked to relevant standards
    - E. Inventory: disclosure of available measures used or declined
    - F. Local assessment instruments
    - G. Status of program options accredited by other recognized accreditors

Alternate approaches

As long as the *Brief* addresses all the elements, components, and subcomponents of the TEAC system (1.1-3.2.6), a program may take any approach that allows the faculty to best make its case. Some possible forms that may suite the faculty members are:

1. An essay with sections corresponding to each of TEAC's quality principles and standards (1.1-3.2.6);
2. A comprehensive internal audit report that probes all dimensions of the TEAC quality principles (1.1-3.2.6);
3. A full account of each numbered element, component, and subcomponent of the TEAC system (1.1-3.2.6);
4. A qualitative case study about their students' accomplishments with regard to the quality principles and the program's role in fostering them, controlling, and monitoring quality.
5. A state or other report that aligns with each of TEAC's requirements (1.1-3.2.6)

Each of these forms would be audited for accuracy and evaluated by the same processes as the recommended monograph format.

TEAC believes that however the *Brief* is organized, writing the *Brief* should serve the program's needs apart from TEAC accreditation.

TEAC's evaluation of the *Brief*

TEAC evaluates the *Brief* in a sequence of five steps, each one dependent on, and informed by, the ones before it:

1. formative evaluation (optional, see www.teac.org for a description TEAC's services),
2. auditability decision by the lead auditor,
3. audit visit and audit report by the audit team,
4. summative evaluation and recommendation by the Accreditation Panel, and
5. accreditation decision by the Accreditation Committee.

Each step is based on a set of questions.

1. Formative evaluation
Is the program making a persuasive case for itself? Does the Brief *include all the required elements? Is the language clear and precise?*

The process of developing the *Inquiry Brief* or *Inquiry Brief Proposal* embodies the idea of continuous improvement. TEAC sees the *Brief* as a living document, so to speak, and consequently welcomes frequent consultation between the program faculty and TEAC about the *Brief*, particularly about effective approaches to substantiating the claims the program faculty makes. The TEAC staff sees its role as assisting the program faculty in making the best case possible that is consistent with the evidence the faculty has about its students' accomplishments and related claims. For this reason, and at the program's request, TEAC reviews draft *Briefs* and provides feedback and guidance and a range of services to those seeking accreditation. A key task of the TEAC staff's formative evaluation of the *Inquiry Brief* is checking the precision of the language and evidence.

2. Auditability decision
Is the Brief *complete and ready to be audited?*

When the program faculty is satisfied with the case it has made, it submits a final draft of the *Brief*, complete with a covering checklist. TEAC staff completes a similar checklist that certifies that the *Brief* contains all the features required for an audit. This certification is a simple precaution and raises the probability that the audit will have a satisfactory outcome for the program and TEAC. Only then is the audit scheduled (or, if scheduled through a state protocol, confirmed). At that point the form of the *Brief* is final and no changes, except minor editorial changes, are permitted. Any changes the program wishes to make after the *Brief* is declared auditable and the audit has begun are made through the audit report findings.

3. Audit
Is the evidence in the Brief *trustworthy?*

Through the audit, TEAC verifies the evidence the faculty cites in the *Inquiry Brief* or *Inquiry Brief Proposal* in support of its claims.

The auditors determine whether or not the evidence in the *Brief* is trustworthy. To do so, the auditors need access to the raw data, spreadsheets, and documents upon which the authors of the *Brief* relied in writing the *Brief*. The faculty should be prepared to show the TEAC auditors the data (records, journals, ratings, evaluations, transcripts, artifacts, etc.) that are portrayed in the *Brief*. A simple rule is: *if the authors needed to look at it, the auditors may also.* Because the TEAC auditors will try to verify as much of the *Brief* as can be practically managed from the TEAC's offices, the faculty may be asked to send the supporting source data to TEAC before the audit. By its very nature, a substantial portion of the audit, however, must be conducted on site.

Audit of the *Inquiry Brief*. The main purpose of the audit of an *Inquiry Brief* is to verify the evidence the program faculty have cited in support of its claims that the program meets TEAC's three quality principles. The auditors select samples of evidence that they predict will reveal and represent the totality of the evidence the program faculty has presented in the *Inquiry Brief*. The auditors are free to search for additional evidence in the process of the audit and these discoveries may support, strengthen, or weaken the corroboration of the evidence behind the program faculty's claims with regard to the quality principles.

Audit of the *Inquiry Brief Proposal*. The main purpose of the audit of an *Inquiry Brief Proposal* is to verify the targets associated with the program's rationale, quality control system, commitment, and capacity, and to search on site for possible lines of evidence and approach that can be used to support the program's claims and the program's method of establishing reliability and validity of its evidence. The result is that a firm and realistic plan for the eventual *Inquiry Brief* can be established and negotiated between the auditors and program faculty. This entails verifying the statements the program faculty members have cited with respect to its rationale and the evidence they have for *Quality Principles II* and *III*. As with the audit of the *Inquiry Brief*, the auditors select samples of evidence that they predict will reveal and represent the totality of the evidence the program faculty have that their plan for an *Inquiry Brief* will be successful.

4. Summative evaluation
Is the preponderance of the evidence in the Brief *consistent with the program's claims that its the program's graduates are competent, caring, and qualified? Is the evidence reliable, valid, and of sufficient magnitude to support the program's claims?*

TEAC's Accreditation Panel determines if the evidence, as verified by the audit, is consistent with the program's claims and the requirements of the TEAC system and also if the evidence is of sufficient magnitude to support the claims in the *Brief*. On the basis of its examination and evaluation, the panelists recommend an accreditation status for the program to the Accreditation Committee.

5. Accreditation decision.
Should the Accreditation Panelists' recommendation be accepted? Was the TEAC process that ended in the panel's recommendation followed properly?

TEAC's Accreditation Committee makes two decisions: (1) whether TEAC followed its own guidelines and quality control system and (2) whether there is anything in the record that would call the panelists' recommendation into question. In their deliberations, the panelists and the committee are guided by a set of common heuristics for the accreditation decision

but the panelists are satisfied if the preponderance of the evidence is consistent with the program's claims. The committee assumes the panelists were correct and can only undo the panelists' recommendation if there is conclusive evidence that the program's claims were not true.

Who makes the decision within the TEAC System?

Exercise 1: For each conclusion that a TEAC review might reach, indicate whether the review would be made by the auditors (A), Accreditation Panel (P), Accreditation Committee (C), or none of the above (N).

	The evidence presented in Table 12 on page 10 of the *Brief* is accurate.
	The evidence brought to bear on the claim of caring teaching is reliable.
	The program is accredited for five years.
	The *Brief* is too short.
	The institution is committed to the program.
	TEAC followed correct procedures in handling this program's case.
	It is recommended that the program be accredited.
	The *Brief* is ready for audit.
	The *Brief* is not in the proper format.
	The license test scores are too low to support the claim 1.
	The program is awarded accreditation for two years.
	The license scores are 30 points lower than what was reported in the *IB*.
	There is a rival hypothesis for the program's interpretation of its findings.

Understand the difference: the *Inquiry Brief* and *Inquiry Brief Proposal*

Exercise 2: Complete the table below by placing a check mark in the appropriate columns for each item. Some items will have a check mark in both columns, others in only one, and some may have none at all. Note that the task is about requirements.

Comparing the *Inquiry Brief* and *Inquiry Brief Proposal*

	Required in the *Inquiry Brief*	**Required in the *Inquiry Brief Proposal***
1. Claims related to *Quality Principle I*		
2. Rationale linking assessments to claims		
3. Findings related to claims		
4. Description of how the program addresses cross-cutting themes		
5. Evidence of institution's commitment to the program		
6. Evidence of program capacity to produce graduates who are qualified, competent, and caring		
7. *US News* ranking of the program		
8. Percentage of graduates employed		
9. Description of the methods used to collect evidence		
10. Explanation of the cut scores used to make decisions in the program		
11. Evidence drawn from local assessments about the reliability of the measures		
12. Number of faculty with teaching license		
13. Conclusions related to the findings		
14. Self-audit of quality control system		
15. Appendix A (internal audit)		
16. List of decisions the faculty has made about the program based on evidence		
17. Appendix E (inventory of evidence)		
18. Pass rates reported for Title II		
19. Number of faculty and students		
20. GPA requirements for the degree		
21. Description of quality control system		
22. Evidence of faculty endorsement		
23. Appendix F (local assessment instruments)		

Exercise 3: Monitor your progress in preparing an *Inquiry Brief* or *Inquiry Brief Proposal*.

Checklist to accompany the submission of the Inquiry Brief *and* Inquiry Brief Proposal[1]

Requirements for the *Brief*	**Find it on page**	**Still missing**
1. We identify the author(s) of the document.		
2. We provide evidence that the faculty approved the document.		
3. We give a brief account of the history and logic of the program and its place within the institution.		
4. We provide some demographics of program faculty and students (e.g., race and gender), broken out by year, by each program option.		
5. We state our claims explicitly and precisely.		
6. We provide evidence to support our claims organized by their relationship to the components of QPI (1.1–1.3).		
7. We provide evidence for all the subcomponents of QPI (I.4): learning how to learn (1.4.1); multicultural perspectives and accuracy (1.4.2) and technology (1.4.3).		
8. We have checked that our claims are consistent with other program documents (e.g., catalogs, websites, and brochures).		
9. In the rationale, we explain why we selected our particular measures and why we thought these measures would be reliable and valid indicators of our claims.		
10. In the rationale, we also explain why we think the criteria and standards we have selected as indicating success are appropriate.		
11. We describe our method of acquiring our evidence – the overall design of our approach, including sampling and comparison groups (if applicable).		
12. We provide at least two measures for each claim unless there is a single measure of certain or authentic validity.		
13. For each measure we include empirical evidence of the degree of reliability and validity.		
14. We present findings related to each claim, and we offer a conclusion for each claim, explaining how our evidence supports or does not support the claim.		
15. We describe how we have recently used evidence of student performance in making decisions to change and improve the program.		
16. We provide a plan for making future decisions concerning program improvements based on evidence of our students' performance.		

[1] The checklist for the *Inquiry Brief Proposal* need not have entries for rows 6, 7, 13, 14 and 15.

17. We provide evidence that we have conducted an internal audit of our quality control system (QCS) and we present and discuss the implications of the findings from our internal audit.		
18. We provide Appendix C that describes faculty qualifications.		
19. We provide Appendix D that describes our program requirements and their alignment with state and national standards.		
20. We make a case for institutional commitment to the program (Appendix B).		
21. We make a case that we have sufficient capacity to offer a quality program (Appendix B)		
22. We list all evidence (related to accreditation) available to the program (Appendix E).		
23. We provide copies of all locally developed assessments in Appendix F.		
24. We provide, if applicable, copies of decisions by other recognized accreditors for professional education programs not covered in the *Inquiry Brief (*Appendix G).		
25. If our program or any program option is delivered in distance education format, we make the case that we have the capacity to ensure timely delivery of distance education and support services and to accommodate current student numbers and expected near-term growth in enrollment.		
26. If our program or any program option is delivered in distance education format, we describe the process by which we verify the identity of students taking distance education courses.		

Understanding a different style of writing

Overview

In what other ways are the Inquiry Brief *and* Inquiry Brief Proposal *different from the self-study reports we have written in the past?*

This exercise explains TEAC's expectation for precise language throughout the *Inquiry Brief* and *Inquiry Brief Proposal*. Below we provide a description of the kind of writing we seek from programs. To help you understand and practice this different style of writing, we offer two exercises (Exercises 4 and 5) on the pages immediately following.

Precise language

Producing an *Inquiry Brief* or *Inquiry Brief Proposal* calls for a kind of writing that is different from the usual self-study or program approval document. TEAC seeks a writing style that has greater precision and clarity than is typically called for in accreditation or state program approval self-study reports.

Why does precise language matter to TEAC?

TEAC stresses clear and precise language because of the kinds of claims and supporting evidence that TEAC asks of its candidates for accreditation.

> Teacher education programs seeking TEAC accreditation must provide solid evidence that their candidates understand their subject matter and the process of learning and that they develop teaching skills. The programs must also demonstrate that they have an ongoing process for reviewing and improving themselves and the capacity to offer quality education. The program faculty's claims and the measures used to support them are very specific; therefore the language must be precise.

Vague, imprecise language will not only obscure the goals and accomplishments of the program, but it will make it more difficult for the auditors to verify the text of the *Brief* because the auditors need to determine whether or not the errors they may find in the text alter the meaning of the *Brief* or would mislead a reader. Imprecise text is likely to be open to multiple interpretations, some of which may not even have been intended by the authors, but which if adopted may alter the meaning of the text and potentially mislead the reader. For this reason, checking the precision of the language and evidence of the *Inquiry Brief* and *Inquiry Brief Proposal* is a key task in both TEAC's formative evaluation and the audit of the *Brief*. TEAC staff and auditors focus on language and precision in order to determine the degree to which the *Brief* means exactly what the program faculty intend it to say.

Understanding a different style of writing

Exercise 4: Consider the assertions below and ask yourself, *How could one know this? Could that really be the case? What exactly does this mean*? *And the most important question of all – **What evidence could make it wrong***?

1. Our students acquire a deeply rooted matrix of the application of theory to practice.

2. Students learn multiple ways of understanding education, with a balance of quantitative and qualitative methods.

3. …the program aims to develop reflective scholars who are expert sources of knowledge in their disciplines and who can tap the diversity of the education community at large to enrich their scholarly work.

4. The core courses represent a coherent study of learners as they experience diverse contexts for learning, the nature of the learning experiences and the substance of what is learned, as well as the larger policy environment in which schooling takes place.

5. It is our view that weak enrollments here, and elsewhere, may be due to larger economic conditions, but it is more likely due to the fact that we are not successful in getting out [the message] that this is a world-class university with a world-class faculty, that we have an abundance of resources, and have a strong track record in successfully placing our graduate students.

6. The faculty consciously spiral essential curricular elements into each course so that exposure to critical topics is recursive and affected by each intern's experience in his/her own classroom and school.

7. Classroom realities have a way of making a reasonable approach to a complex issue seem more pressing than abstract case studies.

Exercise 4, continued: Choose one sentence from the list above and describe what makes it problematic for TEAC's purposes. Be prepared to discuss your thoughts with the group.

For example, consider the assertion, "*our students acquire a deeply rooted matrix of the application of theory to practice,"* and ask: *How could one know this? Could that really be the case? What exactly does this mean*? *And the most important question of all – What evidence could make it wrong*? This kind of assertion is unacceptably imprecise and should be avoided in an *Inquiry Brief* because surely its author could not answer obvious questions about it – such how deeply rooted is the matrix, how one could tell if it were deeply or shallowly rooted, what there was before the matrix was acquired, what it is rooted to, what kind of matrix it is (orthogonal, oblique), how many cells the matrix has, how the theories connected to matrix, what specific practices flow from the theories, which others do not, whether there are wrong-head applications of theory to practice, how many theories there are, and so forth.

Exercise 5: Consider the following sentences that might appear in a *Brief* and rate the precision of each Check **precise** if the sentence seems sufficiently precise. Check **not precise** if the sentence is seriously imprecise. Check **?** if you are not sure or if the statements could be made more precise in subsequent text.

Note: an answer key for Exercise 5 appears at the end of this section.

Statement	Not precise	Precise	?
1. *Our students leave the program with a caring attitude toward children.*			
2. *In leading a class discussion, our students exhibit knowledge of and a disposition to practice "wait time" in appropriate amounts.*			
3. *Graduates of our program are, overall, competent to take on the role of classroom teacher.*			
4. *Students in our program are proficient in the use of the tools of instruction, including PowerPoint, WebQuests, and word processing.*			
5. *Students in our program are taught "how to learn" in six different required courses.*			
6. *Our students receive a liberal education in our institution because of the distributional requirements set by the Faculty Senate for all students in the university.*			
7. *Students will graduate with passing scores on the state's sub-test entitled, "Knowledge of Diversity."*			
8. *There is no difference in knowledge of subject matter between our graduates in mathematics education and their counterparts who are pure mathematics majors.*			
9. *Our students will score at the 50th percentile or above on the* Minnesota Teacher Attitude Inventory *administered after the completion of the student teaching course*.			
10. *Our graduates are committed to the Judeo-Christian principles that made our nation great.*			

Answer Key to Exercise 5, Understanding a Different Kind of Writing

Imprecise statements usually will merit a probe by the auditor, so the test of an imprecise statement if often whether it requires a probe by the auditor to insure what the reader would understand the statement to mean or not mean.

Note: "Precise" denotes that the sentence is an example of the writing preferred by TEAC.

Item	Answer	Expected auditor probe
1	Not precise	The term "caring" is sufficiently ambiguous in the literature to prompt a probe here. What does the term mean, exactly? How is *caring* measured? What does the term, "attitude," mean or what behavior represents it?.
2	Precise	The term "*wait-time*" is well documented and precise. This use of language does not merit a probe; however, it may arise that the faculty use precise terms imprecisely, so an auditor might probe how the faculty knows the students fail to show wait time.
3	Not precise	The term, "*competent,*" has many meanings several probes are possible -- Does it mean they survive the first year, or how competence was distinguished from incompetence or what are the subparts of being *competent.*
4	Precise	The technical terms here are well understood and clear, although the meaning of the term, *proficient,* could be probed.
5	Not precise	The phrase "*how to learn*" has many meanings that would be probed.
6	Precise	The assertion is in the form of a definition: This is what the faculty means by *liberal education*. Although the definition may be problematic and contested, it is clear.
7	Precise	Assuming the passing scores are public and known, this statement is clear.
8	Not precise	The concept "*knowledge of subject matter*" is not fixed in the literature. This statement requires a probe before the reader could be confident in his/her interpretation of the assertion.
9	Precise	This sentence is stated as a fact: it is clear what the faculty means.
10	Not precise	The auditors would probably not find the statement relevant to the TEAC system but if it were, the meaning of "Judeo-Christian" and "committed" would be probed

Exercise 6: Appendix D: To represent program requirements and show how they are related to the state's and professional association's standards, complete the table on the next page for each program option.

Format for Appendix D for teacher education

TEAC *Quality Principle I* components	Program option requirements that address *Quality Principle I* and state subject matter and pedagogical standards for _____					State standard number	Professional association standard number
	Required courses	Field work requirements	Admissions requirements	Portfolio requirements	Exit requirements		
1.1 Subject matter knowledge							
1.2 Pedagogical knowledge							
1.3 Caring and effective teaching skill							
1.4.1 Cross-cutting theme: *Learning how to learn*							
1.4.2 Cross-cutting theme: *Multicultural perspectives*							
1.4.3 Cross-cutting theme: *Technology*							

The program is free to tailor the column headings to its particular requirements for each of its program options. For example, a program might have made the following provisions for subject matter knowledge in its program requirements for math teachers: the state may have some math standards the program names, the program may have adopted the subject matter standards of NCTM, certain math courses are required and named, some field work may require math lessons and units, for admission the program may require a math aptitude test score, some prerequisite math courses, a portfolio may require work samples of math lessons and their assessment by the student teacher, and finally the program may require some exit survey on math preparation and knowledge or some standardized math test (e.g., Praxis II). All of these requirements would be cited in the cells in the table above either directly and/or by reference to some other document. A program may have requirements of a different kind from those in the column headings above to address *Quality Principle I,* etc. and these should be cited either by substitution or addition.

Format for Appendix D for educational leadership

TEAC *Quality Principle I* components	Program option requirements that address *Quality Principle I* and state subject matter and pedagogical standards for _____					State standard number	Professional association standard number
	Required courses	Field work requirements	Admissions requirements	Portfolio requirements	Exit requirements		
1.1 Professional knowledge							
1.2 Strategic decision-making							
1.3 Caring and effective leadership skill							
1.4.1 Cross-cutting theme: *Learning how to learn*							
1.4.2 Cross-cutting theme: *Multicultural perspectives*							
1.4.3 Cross-cutting theme: *Technology*							

The program is free to tailor the column headings to its particular requirements for each of its program options. For example, a program might have made the following provisions for subject matter knowledge in its program requirements for math teachers: the state may have some math standards the program names, the program may have adopted the subject matter standards of NCTM, certain math courses are required and named, some field work may require math lessons and units, for admission the program may require a math aptitude test score, some prerequisite math courses, a portfolio may require work samples of math lessons and their assessment by the student teacher, and finally the program may require some exit survey on math preparation and knowledge or some standardized math test (e.g., Praxis II). All of these requirements would be cited in the cells in the table above either directly and/or by reference to some other document. A program may have requirements of a different kind from those in the column headings above to address *Quality Principle I,* etc. and these should be cited either by substitution or addition.

EXERCISES

Exercise 7: **Commitment:** Is your institution committed to your teacher education program? On a scale of 1-10 (with 10 indicating full commitment), how committed is your institution to your program? How do you know? List some signs that prompt you to give the rating you did. Discuss your ratings and reasons with your colleagues.

1 2 3 4 5 6 7 8 9 10

Exercise 8: **Commitment**: Predict where your program's statistics would be superior, the same, or inferior to the norm at your institution. Working with a colleague, write *Equal to*, *Higher than*, or *Lower than* in each cell of the last column of the table below.

Capacity dimension	Program	Institutional norm for similar programs	Analysis of differences
3.1.1 Curriculum[2]			
3.1.2 Faculty[3]			
3.1.3 Facilities[4]			
3.1.4 Fiscal and administrative[5]			
3.1.5 Student support services[6]			
3.1.6 Student feedback[7]			

[2] E.g., total number of credits for graduation, grade requirements, number of credits in the major
[3] E.g., proportions of terminal degrees, genders, races, etc., research support per faculty member, workload composition, balance of academic ranks, promotion and tenure standards
[4] E.g., allocated space and equipment, support facilities, special facilities
[5] E.g., cost/student, staff compensation, scholarships, proportion of administrators/support staff
[6] E.g., counseling, advisement, media/tech support, career placement
[7] E.g., proportion of complaints about program, course evaluation ratings

Exercise 8 helps you begin to make your argument for your institution's commitment to your program. The expectation is that a program has parity with others in the institution. If the program is treated differently, you will need to think about why that is the case.

Exercise 9: **Commitment:** Assume you have verified the evidence for each of the statements below. Now consider whether you would want to probe further any of the following findings. Do they indicate commitment, or are there alternative interpretations you can think of that do not signify commitment and that you want to check with additional internal audit tasks? Circle the numbers of those findings for which you think there may be other interpretations that require additional audit probes on your part. Be ready to defend your selections.

1. The program has a higher proportion of part-time faculty than the institution as a whole.

2. The program has a higher proportion of assistant professors than the institution as a whole.

3. The program charges less tuition for its teacher education graduate program than for other graduate programs in the institution charge.

4. The program is one of three programs in the strategic plan adopted by the trustees.

5. The average length of service of the program faculty is less than the average of faculty in other programs within the institution.

6. Students in the program file fewer complaints per capita than students in other programs.

7. The program receives the same per faculty budget allotment as other programs.

8. The students in the program rate their courses higher on average than students in other programs rate their courses on average.

9. The program has more secretarial staff than other similar departments.

10. More credits are required in our program than any other undergraduate program.

Exercise 10: **Commitment**: Consider those instances where you entered a "lower than" rating for the program in Exercise 8 above.

There may be a perfectly sound reason, unrelated to commitment, for your rating. Your program, for example, may have proportionally fewer full professors than the institution as whole, but the reason may be that a large number of retired full professors have been replaced by new assistant professors. Or your program may have proportionally more part-time faculty than the institution as a whole. This may be because there is truly a lack of commitment to the program because your institution is seeking to minimize its costs, or it may be because there are sound reasons why the quality of the program would be enhanced by proportionately more faculty members with *real world* and *practical* knowledge.

Circle any "lower than" rating in Exercise 8 that can be explained as indicating something other than a lack of commitment and use the space below for your notes on these items.

Exercise 11: If you found the following, what argument would you make and what additional information would you seek in your inquiry? Write your response below.

> The education department average salary for 2007-08 was $39,453 and the average for faculty in the college whose service (2 years) equaled the college's faculty's service was $42,690. The difference was explained on the basis that some recent hires in other departments were a minority faculty member and faculty in computer science and in mathematics, all hires affected by competitive market factors.

Exercise 12: **Parity**. With your colleagues, select one capacity dimension (curriculum, faculty, facilities, resources, fiscal and administrative, support services, policies and practices) and outline a plan for presenting evidence to show that your program conforms to the norms for similar programs at your institution. Be prepared to present your plan to the whole group.

Appendices E and F
Examine assessments

At this point, it will be useful to examine in depth all the assessments that the program has available:

- Which ones provide evidence that the program prepares competent, caring, and qualified educators and which ones do not?
- Which ones specifically provide evidence that the students know the subject(s) they will teach, know pedagogy, and know how to teach effectively in a caring way and which ones do not provide that evidence?

The faculty members should take the time to explain **why they think it is reasonable to use** the particular measures of student learning they have selected. The faculty members may believe that such measures as grades in the major courses, scores on Praxis II, scores on the state curriculum tests, scores on the GRE subject matter test, grades on the senior thesis in the major, cogency of the candidates' lesson plans in their subjects all suggest that the teacher education candidates know their subject matter. If they believe this, then they would also expect that these measures would be related to each other. Students who score well on one should score well on the others and vice versa. These expectations should also be checked.

The program faculty should also examine *how* the assessments are administered. The information collected at this time should include instructions given to the assessors and any training that is provided to them that is designed to increase the reliability and validity of the assessments. Having this information will help the program faculty assemble a full picture of its assessments. Later, during the audit, the auditors will need it, too. They will inspect the assessment instruments, the instructions to the assessors, and any training materials associated with the assessments. Also, you will need a copy for each of your local assessments for **Appendix F**, so this is a good time to create that appendix.

Exercise 13: Measures that will yield evidence: Below is a list of hypothetical measures taken on candidates in a program. Indicate the column in which each could be included in the table for Appendix E (on the next two pages), or whether the measure is even appropriate to use as evidence:

1. Mid-term exams given in Professor Nolen's methods class
2. SAT scores of candidates
3. Rate of students who are from out-of-state
4. Grades in a technology class
5. "Pop" quizzes given in the educational psychology course
6. Ratings assigned to candidates in student teaching by university supervisors
7. Self ratings by candidates of their ability to work with diverse students
8. Rate of graduates who become nationally board certified
9. Grade point averages of candidates in electives
10. GRE subject matter test results
11. Drop-out rate from the program
12. Pass rates on license tests
13. Program students' mean IQ scores

Inventory: status of evidence from measures and indicators for TEAC *Quality Principle I*					
Type of evidence	**Available and in the *Brief*[8]**			**Not available and Not in the *Brief***	
Note: items under each category are examples. Program may have more or different evidence	**Relied on** Reasons for including the results in the *Brief* Location in *Brief*		**Not relied on** Reasons for not relying on this evidence Location in *Brief*	**For future use** Reasons for including in future *Briefs*	**Not for future use** Reasons for not including in future *Briefs*
Grades					
1.Student grades and grade point averages					
Scores on standardized tests					
2. Student scores on standardized license or board examinations					
3. Student scores on undergraduate and/or graduate admission tests of subject matter knowledge and aptitude					
4. Standardized scores and gains of the program graduates' own pupils					
Ratings					
5. Ratings of portfolios of academic and clinical accomplishments					
6. Third-party rating of program's students					
7. Ratings of in-service, clinical, and PDS teaching					
8. Ratings, by cooperating teacher and college / university supervisors, of practice teachers' work samples.					
Rates					

[8] Assessment results related to TEAC *Quality Principle I* that the program faculty uses elsewhere must be included in the *Brief*. Evidence that is reported to the institution or state licensing authorities, or alluded to in publications, websites, catalogs, and the like must be included in the *Brief*. Therefore, Title II results, grades (if they are used for graduation, transfer, admission), admission test results (if they are used), hiring rates (if they are reported elsewhere) would all be included in the *Brief*.

Inventory: status of evidence from measures and indicators for TEAC *Quality Principle I*					
Type of evidence	**Available and in the *Brief*[8]**			**Not available and Not in the *Brief***	
Note: items under each category are examples. Program may have more or different evidence	**Relied on** Reasons for including the results in the *Brief* Location in *Brief*		**Not relied on** Reasons for not relying on this evidence Location in *Brief*	**For future use** Reasons for including in future *Briefs*	**Not for future use** Reasons for not including in future *Briefs*
9. Rates of completion of courses and program					
10. Graduates' career retention rates					
11. Graduates' job placement rates					
12. Rates of graduates' professional advanced study					
13. Rates of graduates' leadership roles					
14. Rates of graduates' professional service activities					
Case studies and alumni competence					
15. Evaluations of graduates by their own pupils					
16. Alumni self-assessment of their Accomplishments					
17. Third-party professional recognition of graduates (e.g., NBPTS)					
18. Employers' evaluations of the program's graduates					
19. Graduates' authoring of textbooks, curriculum materials, etc.					
20. Case studies of graduates' own pupils' learning and accomplishment					

<u>Exercise 14</u> (for teacher preparation) How the evidence listed in Appendix E aligns to the TEAC system: With a colleague, complete the table below, noting the assessments the program uses to measure subject matter knowledge, pedagogical knowledge, and caring and effective teaching skills, and making the case that the assessments for each outcome are valid.

Developing a rationale for assessments, part 1

Outcome *Our graduates meet the…*	**Measures**	**Evidence that the measures are valid**
Subject matter knowledge claim		
Pedagogical knowledge claim		
Caring and effective teaching skills claim		
Cross-cutting theme of learning how to learn		
Cross-cutting theme of multicultural perspectives and accuracy		
Cross-cutting theme of technology		

<u>Exercise 14</u> (for educational leadership) How the evidence listed in Appendix E aligns to the TEAC system: With a colleague, complete the table below, noting the assessments the program uses to measure professional knowledge, strategic decision-making, and caring and effective leadership skills, and making the case that assessments for each outcome are valid.

Developing a rationale for assessments, part 1

Outcome *Our graduates meet the…*	**Measures**	**Evidence that the measures are valid**
Professional knowledge claim		
Strategic decision-making claim		
Caring and effective leadership skills claim		
Cross-cutting theme of learning how to learn		
Cross-cutting theme of multicultural perspectives and accuracy		
Cross-cutting theme of technology		

<u>Exercise 15</u> (for teacher education) Identifying the program's standard: With a colleague, complete the table below, noting the assessments the program uses to measure subject matter knowledge, pedagogical knowledge, and caring and effective teaching skills, and cite the program's standard for success on the measure, how was the standard determined and why is it appropriate. (See Exercise 41, pages 62-63.)

Developing a rationale for assessments, part 2

Outcome *Our graduates meet the…*	**Measures**	**What is the program's standard for success on the measure and why is it appropriate?**
Subject matter knowledge claim		
Pedagogical knowledge claim		
Caring and effective teaching skills claim		
Cross-cutting theme of learning how to learn		
Cross-cutting theme of multicultural perspectives and accuracy		
Cross-cutting theme of Technology		

Exercise 15 (for educational leadership) Identifying the program's standard: With a colleague, complete the table below, noting the assessments the program uses to measure professional knowledge, strategic decision-making, and caring and effective leadership skills, and cite the program's standard for success on the measure, how was the standard determined and why is it appropriate. (See Exercise 41, pages 62-63.)

Developing a rationale for assessments, part 2

Outcome *Our graduates meet the…*	**Measures**	**What is the program's standard for success on the measure and why is it appropriate?**
Professional knowledge claim		
Strategic decision-making claim		
Caring and effective leadership skills claim		
Cross-cutting theme of learning how to learn		
Cross-cutting theme of multicultural perspectives and accuracy		
Cross-cutting theme of technology		

Exercise 16: Below are listed some "local instruments" that might be used by the faculty and placed in Appendix F. Circle the number(s) of the options that would likely be inappropriate for inclusion in the *Brief*.

1. A 10 minute quiz administered in a required Educational Psychology course in the program.
2. The rubrics that cooperating teachers use to effect their evaluations of student teachers.
3. A description of the State test required of all candidates seeking state licensure.
4. A survey administered to graduates as they exit the program.
5. A prompt for writing lesson plans that is a standard program assignment across all methods courses.
6. Observation forms used by University/College supervisors during the time they supervise student teachers.

List some examples of local instruments you might include in Appendix F not cited in the first six options.

Exercise 17: TEAC asks for the faculty's reasons for including a measure in the *Brief* as support for a claim. Which of the following options represent reasonable, sensible reasons for including a measure? Explain your selections.

1. The state requires the measure.
2. We've always used this measure in our program.
3. It's available to us – and easy to collect and to summarize.
4. The measure was developed by faculty who studied precisely how it is sensitive to our claim.
5. The faculty studied the in-house research carried out by ETS to validate the measure and its suggested cut scores, and found the evidence provided to them compelling.
6. We believe the measure is valid.
7. The faculty undertook task analyses to demonstrate to its satisfaction that the measure "gets at" the sub-component under study.
8. This measure correlates nicely with other measures of this construct, giving the faculty confidence that it can be relied upon as a measure of this sub-component.
9. The university requires all programs to use its assessment of writing.
10. We have found over the years that the students who scored above 85 on the measure tended to become "Teachers of the Year" in the state.

Exercise 18: TEAC asks for the faculty's reasons for not including a measure in the *Brief*. Which of the following options represent compelling and sensible reasons for excluding a measure from the *Brief* proper? Explain your selections. (Remember that all measures having to do with candidate learning or institutional learning that are available to the program have to be made available to TEAC, if not in the *Brief*, then in some other supplementary report).

1. We cannot think of an argument that connects the measure to the quality of our program.
2. We don't have this measure in SPSS format, so it would be difficult for us to analyze it or to summarize it.
3. When we analyzed the measure, it didn't support our claims so we omitted it.
4. It is not cost-effective to collect this data year after year. It is available to us now – but only because it was collected for some other purpose.
5. Our analysis of the reliability of this measure demonstrated that the measure cannot be trusted. Reliability coefficients were below .60.

Appendix A:
The internal audit

Exercise 19: Using TEAC's system (elements 1.0 through 3.0, components and subcomponents) note which parts of your program's quality control system yield information about student learning, valid assessment of student learning, institutional learning, and capacity for quality.

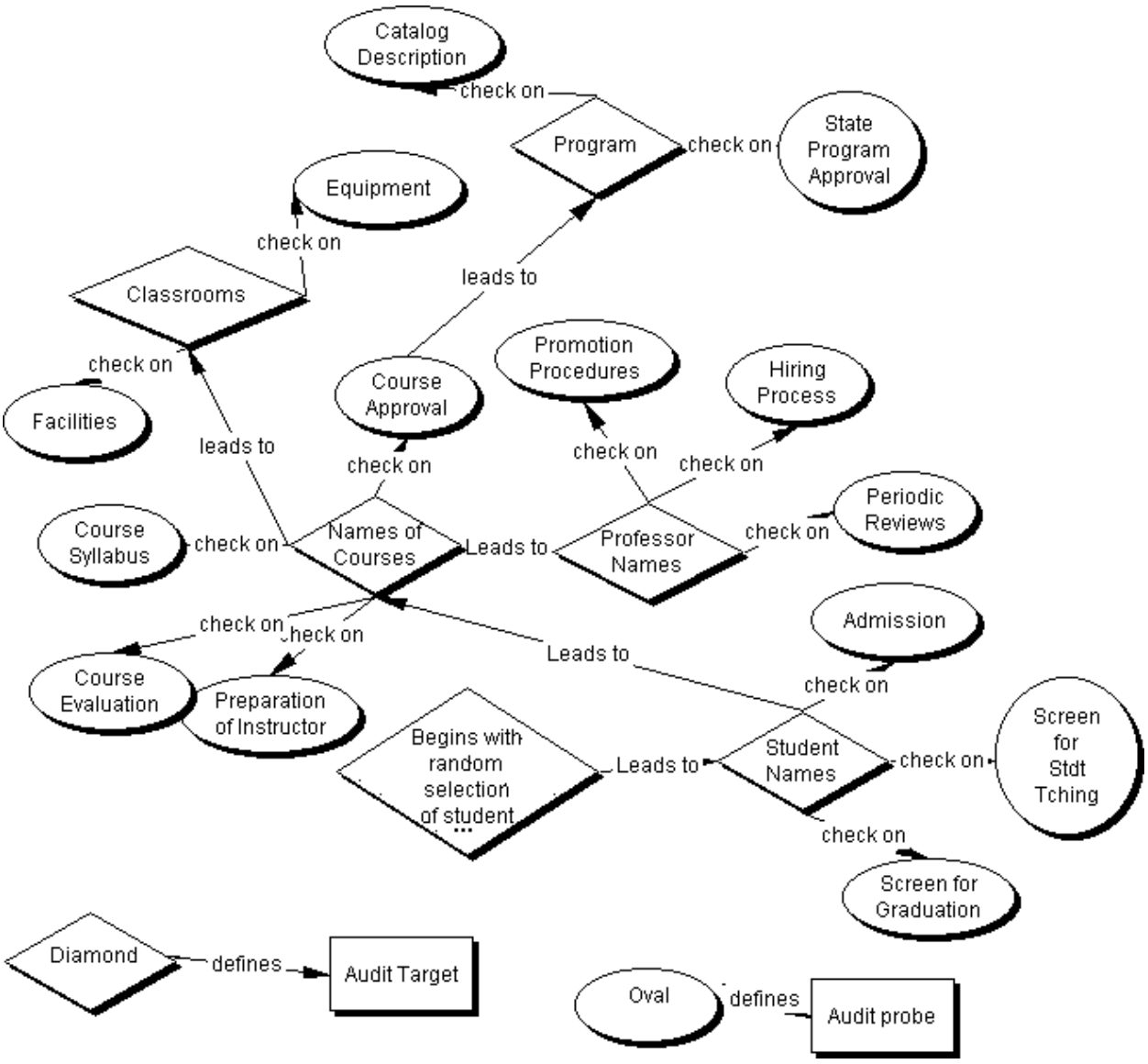
Ask yourselves the following questions:

a) What procedures or mechanisms does your faculty rely upon to make sure faculty members in the program are competent?
b) What procedures does your faculty rely upon to make sure the program's courses are current, rigorous, and aligned with program goals?
c) What procedures or mechanisms does your faculty rely upon to make sure the students are capable of meeting the high standards of the program and are likely to graduate on time?
d) What procedures or mechanisms does your faculty rely upon to make sure that the teaching in the program is of high quality?
e) What procedures or mechanisms does your faculty rely upon to make sure that the classrooms in which courses are delivered are appropriately equipped?
f) What procedures inform the faculty about candidates' performance on measures sensitive to TEAC's quality principles and cross-cutting themes?
g) What procedures provide faculty with evidence about program quality that prompts consideration of program changes and improvements?
h) What procedures or mechanisms does your faculty rely on to insure that most students complete the program and secure a professional position?
i) What procedures or mechanisms does your faculty rely on to insure that the faculty develop professionally and stay current in their fields?

<u>Exercise 20</u>: Elements of the Quality Control System. Using the space below, sketch out the principal components of the quality control system relevant to **your** program. Focus on the quality associated with students, faculty, curriculum, field experiences, advising, and whatever you deem important. Consider how the procedures of the quality control system improve the program. Be prepared to share your work with the group.

You'll find it helpful to make a list of all the pieces of the quality control system first. Then arrange them to reflect their purposes and relationships to each other.

<u>Exercise 21</u>: Follow an audit trail. The program internal audit comprises a series of audit tasks. Each task is made up of a target and a probe. In the figure below, the "check on" arrows represent the probes and the ovals represent the targets. The topic areas are represented by the diamonds. This audit trail begins with a student folder and the figure indicates what it led to. **Follow the trail and add at least four tasks and probes.**



Exercise 22: The following statements are examples of ones that might be included in your *Brief*, check the space ☑ in front of the statements that would be a useful target to probe in your internal audit. Mark the space with an ***X*** if the statement that would not be useful to investigate.

	1. Our graduates are well received by the field, especially by the principals.
	2. Our institution was founded in 1889.
	3. Most of our students are admitted into our program straight out of high school.
	4. Our program is recognized as representing high quality by the *US News and World Report*.
	5. Ninety percent of those we admit finish our program in eight semesters.
	6. Our graduates are reflective practitioners.
	7. We have a dedicated faculty.
	8. Our dean was appointed in 1993 after spending two years as Associate Dean here.
	9. Our university president is C. Byron Fipps.
	10. The mean Praxis I math score for our graduates was 182.
	11. The proportion of assistant professors in the program is the same as it is in the college overall.
	12. Our program ranks first in the state in the Title II report.
	13. All our adjunct professors are screened for appointment by the same procedures we use in hiring for tenure track positions.
	14. Forty percent of the pupils of our graduates score in the proficient range on the NAEP examinations in social studies.
	15. The inter-rater agreement on our student teaching ratings is 88%.
	16. All of our students are church members and claim they are devout.
	17. Our courses are understood to be more rigorous than the courses in other programs.
	18. Seventy-five percent of graduates have teaching positions by the September following their graduation from the program.
	19. The correlation between our students' grade indices between fall and spring semesters is .90.
	20. The annual report of the trustees shows that our program has been designated as one of three flagship and signature programs of the college.
	21. Most of the state's "teachers of the year" are graduates of our program.
	22. Our department is one of six of 30 departments at the institution to have its own departmental secretary.
	23. Most of our students do local volunteer work with children.

Exercise 23: On the next page is an internal audit plan used by a TEAC-accredited program. Examine its features.

Plan for the internal audit (Number of students, etc., from sample in each category (yes, no, NA)

Yes	No	NA	Audit Questions	Comments
			Students	
			1. Did students meet admission requirements?	
			a. Undergraduate GPA of 3.0 or higher	
			b. Undergraduate major/concentration in approved field (pre-service only)	
			c. GRE scores of 1000 + 4.5 (or 1500) or higher	
			d. Two reference letters	
			e. Personal statement	
			f. Provisional certification (in-service only)	
			g. Positive recommendation from Arts & Sciences (MAT only)	
			h. Positive recommendation from Education	
			i. Exceptions to a-h justified and documented	
			2. Did students reflect program efforts to admit and retain-	
			a. Diverse students with demonstrated potential as teachers?	
			b. Teachers for high demand areas?	
			c. Teachers for high need schools	
			3. Did any students change program areas after admission? If so, was the transfer documented and a new plan of study developed?	
			4. Did any students transfer any credit? If so, was the transfer credit policy followed?	
			5. Did any students take any courses on-line? If so, were the on-line course guidelines followed?	
			6. Did students have plan of study that reflected program/degree requirements?	
			7. Did students meet requirements for program retention?	

			8. Did students have adequate options for fieldwork affiliated with coursework and Practicum?	
			9. Did students meet requirements for admission to Practicum?	
			10. Did students complete program and degree requirements?	
			a. Courses specified in plan of study or program description	
			b. Graduate GPA of 3.0 or higher	
			c. Project (Childhood, Inclusive Education) or Portfolio (Adolescence, Literacy, Special Education)	
			11. Were students recommended for certification in the area of study?	
			12. Did students complete the degree in an appropriate timeframe?	
			Student Support	
			13. Was each student assigned an advisor?	
			If yes, did the advisor provide timely and useful advising?	
			14. Did students seek assistance from office staff?	
			15. Did students receive any GA/TA support from the program or campus?	
			If yes, was it comparable to funding available to other students on the campus?	
			16. Did students use any of the campus support services?	
			17. Did students file any complaints with the Division of Education or School of Education and Human Development?	
			If yes, were written procedures to deal with student complaints followed?	
			Program and Courses (30% of Education courses randomly selected from transcript)	
			18. Were all Education courses approved by the Division of Education?	
			19. Were all Education courses approved by the Graduate School?	
			20. Were required Education courses part of a program approved by NYSED?	
			21. Were required Education courses listed as such in the Graduate School Bulletin and SEHD website?	

			Faculty (for randomly selected courses above) 22. Were all or most courses taught by faculty members in tenure-track positions? a. Was the faculty member hired pursuant to a national search? b. Did he/she have a doctorate in a field related to the course content? c. Was he/she reviewed periodically by faculty and administrators prior to promotion and tenure? d. Was he/she promoted and tenured within seven years of being hired? e. Was he/she reviewed periodically by faculty and administrators after promotion and tenure?	
			23. Were other courses taught by adjunct faculty members with a Master's degree and relevant experience? 24. Were courses evaluated by students using (a) SOOTs and/or (b) instructor-designed instruments? 25. Did faculty use student feedback to improve courses?	
			Facilities, Equipment, and Supplies 26. Were courses in classrooms of appropriate size with adequate seating for class? 27. Were courses held in classrooms with suitable equipment and supplies? 28. Were courses held in classrooms with adequate lighting, heat, and ventilation?	

Exercise 24: **Design an audit plan**: In the space below design an **audit plan**. Start by identifying the point at which you will enter the system (and why you are choosing this point). Then list the categories of questions. Sketch out a possible sequence of the audit (what leads to what). Be prepared to share your plan with the group.

In a financial audit, auditors often sample a collection of cancelled checks. They then ask standard questions about each check: who authorized the purchase, where is the item purchased, and so forth. Alternatively, they might begin with a random sample of deposit slips, and ask, where is the invoice that corresponds to this deposit, who authorized the invoice, where is the money that was deposited, and so forth. Using financial audits as an analogy, consider ways of sampling your program's quality control system. Where could the internal auditors begin? Suggest several ways.

Exercise 25: After your internal audit, how would you answer any of the following questions about your quality control system?

1. How were cut scores for various assessments arrived at, and are they succeeding in assuring student success in the program?
2. Are there criteria for identifying excellence as well as for identifying minimally acceptable competence? What benefits are (or could be) derived from identifying outstanding students?
3. Do our faculty members understand our Quality Control System?
4. How are the elements of the Quality Control System related to each other?
5. How does the functioning of the Quality Control System improve student learning?
6. In what ways does or could the Quality Control System inform faculty efforts to ensure and/or enhance program quality?
7. Is the program system of monitoring quality working well?
8. How does the program compare to other programs in the State?
9. How many courses make use of technology?
10. Do the mechanisms we designed to select outstanding students actually find outstanding students?
11. Do the mechanisms we designed to select and retain outstanding faculty members actually find and retain outstanding faculty members?
12. Do any of our current efforts to monitor quality actually have the opposite effect and impede progress and improvement?

Internal audit results
EXERCISES

Exercise 26: Suppose your program requires the Myers-Briggs test and you found the following. What would be your conclusion about your quality control system?

> A search of recent graduate and undergraduate program completers was completed. Of the seven completers, four did not have Myers-Briggs scores recorded. The follow-up probes with the chair revealed that the faculty advisor is responsible for ensuring the completeness of the advisees' files. It is possible that the Career Development Center, which administers the tests, may not have forwarded the scores to the Education Department. The Associate Director of the Center reported that the Career Development Center only forwards copies to those students who designate education as their field of choice and after students have given their permission and when requested (by phone or email) by the Education Department. It was not possible to verify whether the four students had actually taken the tests.

Exercise 27: If your program had a requirement that students needed to earn a grade of C or better for each outcome evaluated in ED4030 and, after looking at six student folders, you found one of the following outcomes; what would your conclusion be with regard to whether your QCS was working with regard to this area with regard to each outcome? In the final row of the table, enter your conclusion for each of the three outcomes – are you following your policy confirmed or not?

Three possible outcomes for the grades on the transcripts of six students ED4030

STUDENT	OUTCOME 1	OUTCOME 2	OUTCOME 3
1	C+	C	A
2	C-	I	A
3	B	D	Course Absent
4	B	A	C
5	A	A	F
6	A-	A	A
Audit conclusion			

Exercise 28: In your efforts to verify your policy of a C in ED4030, would you sample more students for any of the three outcomes cited in Exercise 27 above? If so, how many more would you need investigate for the results found in each outcome?

Outcome 1 _____
Outcome 2 _____
Outcome 3 _____

Exercise 29: Addressing your audit findings: Team up with three other workshop participants and imagine that you are members of a group that has just completed an internal academic audit. How would you deal with the following findings?

a. What if you found, as this faculty did, that many of the program's students saw only adjunct or part-time faculty instructors?

Table 29a
Number of hours in the major and education, GPA, and the percentages of the students' courses taught by full-time and adjunct faculty for a random sample of twelve program students

Student	Major	Hours Major	Hours educ	GPA	FT faculty	Adjunct Faculty
1.CHD1	Science	32	39	2.99	**66%**	**33%**
2.CHD2	NA	39	39	4.00	**0**	**100%**
3.AES1	Social Stud	48	30	3.81	**0**	**100%**
4.AES2	Social Stud	18	24	3.80	**0**	**100%**
5.AES3	Social Stud	48	30	2.67	**0**	**100%**
6.AES4	Social Stud	18	24	3.59	**0**	**100%**
7.ECL1	Social Sc	32	36	3.61	**66%**	**33%**
8.ECL2	NA	39	39	3.95	**66%**	**33%**
9.AEE1	English	18	24	3.67	**66%**	**33%**
10.AEE2	English	18	24	3.60	**0**	**100%**
11.AER1	Earth Sc	46-49	30	3.83	**100%**	**0**
12.AER2	Earth Sc	18	24	3.60	**0**	**100%**

b. What if you found, as did the faculty in the program represented in the table below, that there were significant differences in the ways faculty and cooperating teachers evaluated the students in the program?

Table 29b
Mean GPAs, MoStep I, overall teacher and faculty ratings for students in elementary and secondary teacher education program [sample N=15]

Measure	***Elementary N=10***	***Secondary N=5***	***P values***
GPA	3.47	3.54	.77
A&S GPA	3.71	3.70	.37
ED GPA	3.71	3.70	.37
MoStep I	3.80	3.80	1.00
Cooperating	38.60	33.00	.004
Supervisor	36.30	37.40	.60

c. What if you found that the correlations between the clinical part of the program and the rest of the program indicators were like those in the table below (actual data)?

Table 29c
Correlations among the clinical measures and grades and SAT scores

N=170	GPA spring	GPA 3 sem	GPA final	Math 251	SAT Sum	SATv	SATm	Clinical
PGI (hs+)	**.62***	**.63***	**.62***	**.36***	**.67***	**.60***	**.54***	.02
GPA spring		**.96***	**.84***	**.53***	**.48***	**.45***	**.36***	.16
GPA 3 sem			**.89***	**.54***	**.47***	**.36***	**.45***	.16
GPA final				**.57***	**.41***	**.57***	**.37***	.26*
Math 251					**.37***	**.19***	**.43***	.14
SAT sum						**.83***	**.87***	-.07
SATv							**.45***	-.06
SATm								-.06

* significant at the .01 level or lower

Expanded information required for continuing accreditation

The program's first *Inquiry Brief* contained three implicit promises for the future and these need to be addressed in the program's subsequent bid for reaccreditation. These three were: a plan to undertake continuing inquiry into the factors that might influence candidate learning and accomplishment in the program; evidence that not only did the Quality Control System work more or less as it was designed, but that it improved program quality; and that some of the categories of evidence, cited in Appendix E, that were not available or relied upon in the first *Inquiry Brief* would be used in the subsequent *Brief.*

The *Inquiry Brief* from program faculty seeking continuing accreditation will make the case for accreditation with TEAC by including all the familiar elements outlined on pages 41–69, but within that framework, the program will also need to integrate information about the three points above into its *Inquiry Brief* for re-accreditation:

1. With regard to its plan for future and on-going inquiry, the faculty can provide a separate report of how the plan turned out, or the report can be included in the *Inquiry Brief* in the Discussion section if it does not exist in a separate format. The program is not obligated to conduct the inquiry it planned in its first *Brief,* but it is obligated to have conducted some inquiry to earn a full continuing accreditation term. If the program abandoned its initial plan for inquiry, it would simply give the reasons for its going in a different direction and report the results of the inquiry it in fact undertook.
2. With regard to evidence that the activities of the Quality Control System actually improved something in the program, the faculty should report the evidence it has that it has made something better in the program. This evidence may be the same as that undertaken in Item 1 above or it may be in some other area of interest to the faculty.
3. With regard to how the evidence promised in Appendix E "for future use" has been addressed, the faculty may either include it or provide reasons for not using it.

There is always the hope and expectation that the faculty seeking reaccreditation will also have refined and enhanced the quality of the evidence it uses to make its case so that it is more persuasive and conclusive than what was submitted in the prior *Inquiry Brief.*

Exercise 30: **Following up on the findings (for re-accreditation):** With the key question of the internal academic audit in mind (*Did the mechanism make things better*, *improve quality?*), consider the case below:

CASE: The faculty members in a teacher education program were concerned that their admission standards, while functioning as designed, were not yielding the outcomes they should.

In their internal audit in their first *Inquiry Brief,* they had examined the relationship between GRE scores and program grade point averages and found the correlation was too low to justify the continued use of the GRE as a predictive measure of success in the program.

Subsequently, they then undertook an examination of a sample of students who had completed the program and who had the various undergraduate indices reported in the table below.

What conclusions should they come to in their second *Inquiry Brief* about how should they use the undergraduate index, if at all, in their admission procedure in their graduate program?

Table 30
Number of master's students above and below at graduate GPA of 3.5 as a function of various undergraduate grade point indices (2.4, 2.5, 2.75, 3.0)

Undergraduate GPA	Program GPA Below 3.5	Program GPA Above 3.5	Total
Above 3.0	8	74	82
Below 3.0	9	28	37
Above 2.75	11	87	98
Below 2.75	6	15	21
Above 2.5	13	96	109
Below 2.5	4	6	10
Above 2.4	14	99	113
Below 2.4	3	3	6
Totals	**17**	**102**	**119**

Claims
EXERCISES

Exercise 31: Study the claims below. Are they appropriate to the TEAC framework?

Claim	Acceptable	Perhaps acceptable	Not acceptable
1. Our graduates know their subject matter.			
2. Our graduates score above the state average on the Praxis II test.			
3. Our graduates have a deep understanding of the Christian philosophy that forms the basis of this religious school.			
4. Our graduates almost always know the answers to any question about content asked by their pupils.			
5. Upon graduation, our students will have a deep and abiding understanding of the subject matter they are prepared to teach.			
6. Because our graduates all major in the subject matters they intend to teach, they are well prepared as teachers in subject matter knowledge.			
7. We recommend for certification only those persons among our program completers who score above the state cut-score on the state subject matter tests.			
8. Based on ratings provided by university supervisors and by cooperating teachers, our graduates know their subject matter.			
9. Our graduates are familiar with ways of using technology to locate information about subject matter pertinent to planning and implementing lessons.			

Exercise 32: Borrowing claims: Discuss with your colleagues how you might present your claims in the *Brief*. Will you use state or national frameworks, or develop your own set of statements? If you use "borrowed claims" or standards from another source (such as INTASC or ISLLC), be sure you understand the standard (for example, if you claim INTASC Principle #1, *The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students,* the faculty should be clear what the "essential concepts and tools of a discipline" are).

Recall the discussion in Exercise 4 about precise language and how it would apply to such a claim. An auditor would surely ask for examples of central concepts and tools of inquiry and what some of the structures might be in the discipline(s).

Use this space to cite the evidence you might use to support INTASC Principle #1.

Exercise 33: Writing claims: With your colleagues, use the pages below to draft a set of claims, aligning them with each of the three components of TEAC's *Quality Principle I*: student learning in the areas of subject matter, pedagogical knowledge, and caring and effective teaching skills for teacher preparation, and student learning in the areas of professional knowledge, strategic decision-making, and caring leadership skills for educational leadership. When drafting your claims, keep in mind the three cross-cutting liberal arts themes of learning how to learn, multicultural perspectives and accuracy, and technology, and how these themes are incorporated into the components of *Quality Principle I.*

If you are using state or national standards, map those standards against the three components of *Quality Principle I*.

1.1 Subject matter knowledge (or Professional knowledge)

1.2 Pedagogical knowledge (or Strategic decision-making)

1.3 Caring and effective teaching skills (or Caring and effective leadership skills)

Exercise 34: **Making claims consistent with the evidence you have:** Turn back to the inventory that the faculty has prepared for Appendix E of the *Brief* (page 24). Does your program have the evidence necessary to substantiate the claims it makes to the public and to TEAC?

Return to the claims you created in Exercise 33 and for each claim, list the evidence you would need to support it, noting what is currently available or accessible.

Exercise 35: **Being consistent with public claims:** Check your claims about the program's outcomes against the statements you make to the public via websites, brochures, catalogs, mission statements, state program approval reports, and so forth.

Reflect on the statements about student outcomes that your program is currently making in its public literature. What student learning claims do you and your colleagues currently make concerning your graduates? Are these claims appropriate for the goals and mission of the program and for the evidence upon which you rely? Are they consistent with the claims you are making to TEAC? Do you have evidence to support the public claims?

Exercise 36: Grain size: For the following claims, judge whether or not the claim represents a sufficient grain size for accreditation purposes. Regardless of grain size issues, identify other problems with the claim, if any.

1. Our graduates have mastered Bloom's Taxonomy.
2. Our graduates are well received in the field.
3. Our graduates are excellent teachers.
4. Our graduates are seen to be excellent teachers.
5. Our graduates receive average ratings above 3.5 on a 5 point scale.
6. All of our graduates have an academic major.
7. Our graduates successfully complete a technology course.
8. Our graduates reflect upon their teaching.
9. University supervisors all have recent K-12 experience.

Exercise 37: **Connect your claims and assessments:** Using the claims that you and your colleagues have developed, complete the form below to examine what (and why) you rely on to assess student learning, why you think the measure is valid, and why the criteria and standards you have selected as indicating success are appropriate.

Claim: _____

Source of Evidence:_____

1. Is this the only evidence you have for this claim or are there other sources that will be used?

__ This is the only source of evidence for this claim.
__ There are other sources of evidence for this claim.

Specify:

2. How will the evidence be *reduced* or *scored* so that it might be used to bear on the claim?

__Scores will be generated by using a scoring key
__Check list
__Content analysis
__Scoring rubric
__Results from a testing service or the state
__Data from transcripts or other documents
__Other

3. Will there be a *cut score* or a *standard* that will enable you to interpret the findings?

__ Yes __ No __ Working on it

4. How will you address the reliability issue for this measure?

5. How will you address the validity issue concerning your interpretation of this measure?

Repeat this exercise for each measure relevant to the claim.

Exercise 38: Begin developing plans to test the credibility of your particular claims. With your colleagues, select a claim about student learning your faculty members might make about the program. Design a plan that includes the following:

a) Two measures (at least) taken over a representative period
b) Procedures for assessing the reliability of the measures
c) Procedures for making a persuasive case for the validity of the interpretations the faculty will be making of the measures
d) Option: If you plan to sample, include sampling procedures and descriptions of procedures for testing the fit between the sample and its population

Exercise 39: **Draft your rationale.** Using the space below, draft a short argument for one of your assessments for one of your claims that shows

1. Why the assessment was selected? (The answer to this question often entails showing how the assessment procedures reflect the features of the program, e.g., graduation requirements, admission criteria and procedures, coursework, field assignments, and experiences.)

2. What the passing score is for the assessment, how it was determined, and why does the faculty think it is appropriate?

3. What is the faculty's basis for thinking the assessment is reliable and that they can interpret the results validly?

You might produce the draft together with colleagues from your campus or write individual drafts and then compare and combine drafts.

Exercise 40: The program's standards: An expectation for the rationale section is to argue for the cut or passing scores that are in use in the program. When a measure is given, what level does the faculty take to be acceptable? Whatever the answer to that question, TEAC asks that the rationale address the question: What makes this faculty judgment credible?

Some examples of cut scores include: How high does the GPA have to be to graduate from the program? How high does the score on the state licensure test have to be to be judged by the faculty as "competent"? What levels of ratings from cooperating teachers are expected before a candidate is dropped from the program? What are the stated expectations for advancing to student teaching in the program's screening process?

a. List the current cut scores that apply to your program:

Assessment	Cut score
SAT	
GRE	
High school index	
License scores	
GPA	
Selected course standards	
Satisfaction survey ratings	
Student course evaluations	
Course	
Instructor	
Entry to student teaching	
Education GPA	
Subject Matter GPA	

b. Below are some proposed arguments for particular cut scores. Which arguments do you find compelling? Which ones do you find less than convincing? Mark those that are compelling with a **C** in front of its number. Mark those that are not convincing with an **N**. Place a question mark in front of those for which you are unsure.

C, N, or ?	Argument for cut scores
	Prior to entering the TEAC process, there were a number of cut scores in place. We intend to examine each of them as we develop habits of "institutional learning." As of now, we have chosen to leave most of them in place until our inquiry can challenge them and suggest changes in them.
	We wrote to the programs[9] that were honored by Carnegie in the Teachers for a New Era project to find out what cut scores they used in three particular areas – GPA to exit the program; GPA to enter student teaching; and satisfactory levels of ratings received from cooperating teachers on a five point scale. We adopted their cut scores.
	We hired a statistician who has worked with the National Board for Professional Teaching Standards (NBPTS) to help us empirically set cut scores. She worked for over a year with our files that included a complete data set for 500 of our graduates over a five year period. Her procedures yielded cut scores for GPA to exit, GPA to enter student teaching, and the lowest level satisfactory rating score received from cooperating teachers. We adopted our consultant's recommendations.
	We couldn't find in the research literature or in our own findings guidance for setting our cut scores. For this reason, we adopted the TEAC suggested 75% guideline. All of our cut scores represent the application of the 75% rule to our empirical maximum score.
	In a faculty meeting, we discussed the issue of cut scores and based the discussion on files of students who were near the current cut scores. After lengthy give and take among faculty members, we voted to approve the cut scores reported in the *Brief*.

[9] www.teachersforanewera.com

Exercise 41: Figuring out the passing score (The Angoff method)

The faculty has used the following form of eight items to rate a student teacher's proficiency with technology. The rating form allows the rater to score each item as "satisfactory" or "unsatisfactory." Using this form, the highest possible score is 8. The faculty asks: *What should represent a cut score on this rating form to distinguish students who meet the department expectations from those who don't meet the department expectations?* To determine the cut score, the faculty used the Angoff method (Livingston & Zieky, 2004). Here is the procedure:

1. Identify judges who know the students in the program and who are familiar with their practices with technology in the classroom. (For this exercise, you and your colleagues at the workshop will be judges).
2. Think about a borderline student in your program – one who falls near the cut between competent in technology and incompetent in technology. Discuss this student in some detail with your colleagues or in a "conversation with self" if you are the only person from the program in the workshop. Describe his practices in the classroom and his uses of technology in some depth.
3. Work to understand the following steps of the procedure: For each of the 8 items, decide how likely it would be for borderline students, such as the one you selected and described in step 2 above, to be rated satisfactory on this item. Score each item as 1 if the borderline student would know it and 0 if not. Determine the total score correct for each rater and take the mean of those scores as the cut-score (rounded up or down).
4. Practice the Angoff method on the scale we have provided. What cut score do you recommend?

Directions: Rate the borderline student 1 if he or she could do the item or 0 if he or she could not do the items for each of the 8 items of this scale.

1 or 0	Rating scale for the use of technology in the classroom
	1. The student teacher (intern) uses Power Point (or another presentation application) when presenting information to the class.
	2. The student teacher (intern) uses the Internet to connect the class with others doing similar work in schools across the nation and/or the world.
	3. The student teacher (intern) uses the Internet to locate sources appropriate for the students to use.
	4. The student teacher (intern) finds software items that are useful for teaching understanding of difficult concepts.
	5. The student teacher (intern) coaches students to use computers for many purposes.
	6. The student teacher (intern) is careful to preview software for appropriateness and efficacy before it is introduced to the class.
	7. The student teacher (intern) shows ingenuity in selecting software for use in the classroom.
	8. The student teacher (intern) uses well software to help manage the class, record grades, register feedback, and/or to communicate to students and their parents.

Reference: Livingston, S.A., & Zieky, M. J. (2004). *Excerpts from passing scores.* Princeton, NJ: Educational Testing Service.

Another way to think about it, if there were 100 students who were judged borderline in technology, how many of the 100 would likely be rated satisfactory on each of the 8 items. When you are finished with this task, each item should have a number assigned to it from 0 to 100. Sum the numbers you have assigned to the 8 items, and divide by 100. The quotient should estimate the cut score on the rating scale. For example, if the estimates for the 8 items were as follows: 40, 20, 30, 20, 40, 10, 5, 10 – the sum is 175 and the quotient is 1.75. Rounding to the nearest integer, we have determined that the cut score should be 2. Any student receiving a 2 or lower on the scale should be deemed not to have met faculty expectations.

Exercise 42: The rationale requirement in both the *Inquiry Brief* and the *Inquiry Brief Proposal* asks that an argument be advanced to justify the selection of assessments. Which of the following arguments might be used in the rationale section? Circle the number(s) of the arguments that might be used in a rationale.

1. A description of the process by which the instrument (survey, rubric, test, interview schedule, etc.) was developed.
2. A description of a critique the instrument received from outside reviewers.
3. A content analysis showing how the instrument addresses elements of the construct that is being assessed – caring teaching, subject matter knowledge, etc.
4. If the assessment is a standardized measure published by a testing company, simply say so in the argument.
5. Let TEAC know that if the auditors are interested in the validity of the instrument, they should write to the publisher.
6. Simply advance the assumption that since the local authors of the instrument are all well prepared for their roles in the program, they must have developed a valid instrument.
7. Carry out a pilot study with candidates in the program, and assess the reliability of the instrument empirically and report the estimated reliability coefficient.
8. Report the program's historical experiences with the assessment instrument.
9. Explain how evaluators were trained in the use of the assessment.

Exercise 43: Evidence of reliability: Which of the following approaches would yield evidence that the faculty would find compelling about the reliability of the evidence for the claim, "*our students know how to apply technology in the classroom"*? Circle the number(s) of the approaches that your faculty would find credible.

1. For a 10 item rating form completed by methods instructors, a coefficient alpha is provided, with a value of .82.
2. The faculty observes that the means of a 10 item rating form completed by methods instructors across four sections of the course are almost identical.
3. Two methods instructors rate a sample of students in the program independently, and the level of agreement between the ratings is perceived to be high.
4. The level of agreement of the two methods instructors cited in option 3 above is assessed with a correlation coefficient – and is found to be .85.

List other evidence that would convince the faculty that the measures were reliable.

Exercise 44: Validity: The faculty is interested in knowing whether the 10-item scale used to assess the program's claim concerning technology was valid as a useful tool to verify the claim. Circle the number(s) of the approaches for assessing validity that your faculty would find credible.

1. Since the measures were found to be reliable, the issue of validity is no longer relevant. If the measures are reliable, they are surely valid.
2. The students' scores on the ten-item scale on technology are correlated with the ratings they received in student teaching on "uses technology effectively." The correlation between these two measures is .75.
3. The faculty reviewed the ten items on the technology scale and determined that the items covered all of their intentions about what students should learn about technology in their program. The scale was judged to have content validity.
4. The ratings on the scale discriminated between those students who used technology well in student teaching and those who did not – a finding yielded by a discriminate analysis of the evidence.

List other approaches that would yield evidence that the faculty would find compelling about the validity of the ten-item scale.

Exercise 45: Measures truly relied on: Review the following novel and idiosyncratic measures uncovered in TEAC audits and consider the evidence upon which the program faculty truly rely:

- Candidates equal or exceed majors in grades in the disciplines (teaching subjects)
- Faculty noted the exceptionality of those as students who later were board certified
- High faculty agreement in rating quality of random samples of students by name only
- A&S departments hire candidates as graduate teaching assistants (GTAs)
- Local superintendents waive interviews for recommended students
- Higher state scores in schools with higher densities of program graduates
- Candidates are the first choice and accept their first choice in employment
- Candidates are first choice of cooperating teachers for student teaching assignments
- Lawful patterns of correlations among internal and external measures of the available measures of competence
- Work samples with student/pupil learning data
- Authentic artifacts (viz., technology, video)
- Comparisons of retention of program's students in teaching with other programs
- Regents or NAEP examination scores for candidates
- Reporting assessments at various stages in the program to show reductions in variance over time
- On-demand ratings by faculty of students, video-taped lessons show lawful correlations with internal & external measures
- Pupil evaluations of student teachers

<u>Exercise 46</u>: Organizing your data: With your colleagues, try organizing a spreadsheet like the one below for a sample of your students. Fill in the column headings for as many data sources as you have.

Each row contains the data for one and only one unique student in your sample. Each column contains something you know about your students that is important to the quality of your program. (Example data sources are provided below.) The cells in the spreadsheet contain information (qualitative and/or quantitative) about each student.

Student characteristics

Student	Year	Option	Level	Gender	Race	Major	Site	Etc.
1.								
2.								
3.								
N								

Admissions indicators

Student	SAT score	ACT score	Rank in H.S.	H.S. Grades	Interview	Writing Sample	Etc.
1.							
2.							
3.							
N							

Grade point indices

Student	GPA in methods	GPA in major	GPA in clinical	Grades in techn.	Grades in MC	Etc.	
1.							
2.							
3.							
N							

Local program measures and ratings

Student	Field experience	Coop. teacher rating	College supervisor rating	Portfolio artifacts	Self-ratings	Etc.	
1.							
2.							
3.							
N							

License tests and other external measures

Student	Praxis I	Praxis II	GRE	Etc			
1.							
2.							
3.							
N							

Post-graduate and employer surveys (and the like)

Student	Rating of prgm.	Rating of courses	Rating of faculty	Years teaching	Employer Rating	Pupil state tests	Etc.
1.							
2.							
3.							
N							

Exercise 47: Results: The results, whether quantitative or qualitative, should be truly representative of the program under review and not idiosyncratic to a particular time period or circumstance.

The results must also be disaggregated by subcategory when an aggregated presentation would mask important differences within the groups and categories being reported.

In cases where a program is undergoing revisions and renewal, the results should be of a character that will support a sound prediction of what future results will be. Generally, this means that the most recent results will carry greater weight in TEAC's decision making.

The exercises that follow ask you to think about ways you might present results in the *Brief* and what pitfalls you can avoid.

The four tables below describe some hypothetical and real findings related to the claim of subject matter knowledge (*Quality Principle 1.1*) for a program that prepares secondary level mathematics teachers. Consider the following tables reporting findings in support of the claim *Our graduates know their subject matter*.

Are there problems with this presentation that are serious enough for you to reject the conclusion that the program satisfies *Quality Principle I* with regard to subject matter knowledge? How could the array be made clearer? Use the space below each table for notes in preparation for the conversation.

Table 47a
Findings related to the claim of subject matter knowledge for a program to prepare secondary level mathematics teachers

	GPA in upper level mathematics courses: math department mean: 3.1			Scores on Praxis II: mathematics national mean: 540		
Year of graduation	Graduates N	Mean	SD	Graduates N	Mean	SD
06-07	15	3.5	.5	15	610	90
07-08	12	3.4	.4	12	590	95
08-09	14	3.6	.5	14	615	92
09-10	20	3.0	1.1	20	510	130
10-11	15	3.5	.5	15	610	95

Note: The average correlation across the five-year period between the two measures was .75. The faculty assessed the reliability of the GPA by drawing a sample of 30 students from the five-year period, and correlating the grades received on the odd lines on their transcript with the grades received on the even lines. The correlation was .78, providing support for a satisfactory level of reliability. ETS reports that the Praxis II examination in mathematics has a reliability of .83 for its norming group. The graduates of our program match well the characteristics of the ETS norm group.

An improved presentation of the data appears below.

Note: you will find a sample response to this table on page 69.

Table 47b
Mean (and SD) GPA and Praxis II Scores and Pass Rates in Secondary Mathematics for Years 2006-2011 at Exemplar University

	GPA in upper level mathematics courses: math department mean: 3.1; math department standard: 2.75			Scores on Praxis II: mathematics national mean: 540 *State cut score: 520*			Correlation: GPA-Praxis II
Year of graduation	Number graduates/ number admitted	Mean (0-4)	SD	Graduates N	Mean and (pass rates) 400-800	SD	Pearson *R*
06-07	15/20	3.5	.5	15	610 (84%)	90	.89
07-08	12/21	3.4	.4	12	590 (77%)	95	.70
08-09	14/22	3.6	.5	14	615 (85%)	92	.69
09-10	20/22	3.0	1.1	20	510 (47%)	130	.71
10-11	15/20	3.5	.5	15	610 (84%)	95	80
Total	76/105	3.4	.6	75	587 (75%)	100	.75

Note: The faculty assessed the reliability of the GPA by drawing a sample of 30 students from the five-year period and calculating the mean GPA each year. The means were within .05 of each other. ETS reports that the Praxis II examination in mathematics has a reliability of .83 for its norming group. The graduates of our program match well the scores and demographics of the ETS norm group.

The table below offers an example of how a program faculty might organize its quantitative results for the components of *Quality Principle I*.

Note that although means and standard deviations are the likely entries in each cell of the table, frequency counts, ranks, percentages, percentiles, or whatever quantitative metric the faculty relies on could be also entered.

Table 47c
Means (standard deviations) of a sample of 80 students in six categories of assessments in support of claims for *Quality Principle I*

Outcome claims* *The program's graduates have acquired…*	Categories of evidence and range of scores								
	Grade point index	Standardized tests		Faculty & Cooperating Teacher evaluations		Student self-reports	Survey of graduates and employ-ers		Gains in pupil scores on work samples
		Praxis	NES	Fac	Coop		Grad	Emp	
	(Score Range, e.g 1-4 & Cut Score)	(Score Range & Cut Score)	(Score Range & Cut Score)	(Score Range & Cut Score)	(Score Range & Cut Score)	(Score Range & Cut Score)	(Score Range & Cut Score)	(Score Range & Cut Score)	(Score Range & Cut Score)
Subject matter *(Professional knowledge)*									
Pedagogy *(Strategic decision-making)*									
Teaching skill *(Leadership skill)*									

*Includes measures of learning to learn, multicultural perspectives and technology

Here is another example:

Table 47d
Mean grades (u/g & program), license tests, portfolio rating, internship ratings (mid-term and final) and course pedagogy projects for students in special education program options

	N	Minimum	Maximum	Mean	Program standard	Standard deviation
Undergrad (1-4)	43	2.60	3.88	**3.29**	3.00	.32
Prog GPA (1-4)	43	3.33	4.00	**3.84**	3.00	.14
LAST (100-300)	15	233	286	**262**	250*	18.45
ATS (100-300)	15	234	284	**265**	250*	14.74
LIT (100-300)	30	223	289	**265**	250*	16.11
SWD (100-300)	35	222	279	**254**	250*	14.18
CST (100-300)	23	202	283	**259**	250*	19.77
Portfolio 1 (1-3)	43	1.00	3.00	**2.36**	2.25	.52
Portfolio 2 (1-3)	43	1.00	3.00	**2.29**	2.25	.68
Portfolio 3 (1-3)	43	1.00	3.00	**2.45**	2.25	.60
Portfolio 4 (1-3)	43	1.00	3.00	**2.00**	2.25	.72
Domain 1 (1-4)	43	1.80	4.00	**3.69**	3.00	.42
Domain 2 (1-4)	43	2.50	4.00	**3.73**	3.00	.39
Domain 3 (1-4)	43	2.00	4.00	**3.69**	3.00	.40
Domain 4 (1-4)	43	1.80	4.00	**3.81**	3.00	.39
Mid Term (1-4)	42	2.30	3.70	**2.92**	3.00	.35
Final (1-4)	42	2.50	4.00	**3.32**	3.00	.35
Project 1 (1-100)	32	80.00	97.00	**90.92**	75.00	4.52
Project 2 (1-4)	32	3.30	4.00	**3.77**	3.00	.27

*State passing score is 220

Sample response:

Looking at the data in Table 47b, you might suggest to the hypothetical Brief *authors that they investigate their record for the following:*

- *The statistics about the validity of the interpretations of the measures.*
- *Whether the reliability sample of 30 was representative of the population and whether the N's are representative samples of the graduates or the universe of graduates.*
- *The range of scores for Praxis II (what is the zero score and the maximum?).*
- *The completion rates in each year of the program (because in the years when fewer than 20 students graduated, the program might have had high drop-out rates, in which case the true means would be more like that of the students in year 2009-2010.*
- *Other mathematics measures that would contradict those in the table.*
- *Special features that might have been in place in 2009-2010 (e.g., changes in faculty, the curriculum, the admission standards, policy changes, etc.) to account for the lower mean and larger standard deviation.*
- *The range of the grades to be sure 4.0 was the maximum.*
- *The percentage of students who had a 3.0 or higher math GPA and the number who passed Praxis II (by the state criterion) and achieved 75% of what the top 10% of Praxis II math scorers achieved on the test.*
- *The comparison of the math grades of the graduates with math majors, not just the average of all the graduates at the institution.*

Table 47b (repeated)
Mean and sd GPA and Praxis II scores and pass rates in secondary mathematics for years 2006-2010 at Exemplar University

	GPA in upper level mathematics courses: math department mean: 3.1; math department standard: 2.75			Scores on Praxis II: mathematics national mean: 540 *State cut score: 520*			Correlation: GPA-Praxis II
Year of graduation	Number graduates/ number admitted	Mean (0-4)	SD	Graduates N	Mean and (pass rates) 400-800	SD	Pearson *R*
06-07	15/20	3.5	.5	15	610 (84%)	90	.89
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Total	76/105	3.4	.6	75	587 (75%)	100	.75

Note: The faculty assessed the reliability of the GPA by drawing a sample of 30 students from the five-year period, and correlating the grades received on the odd lines on their transcript with the grades received on the even lines. The correlation was .78, providing support for a satisfactory level of reliability. ETS reports that the Praxis II examination in mathematics has a reliability of .83 for its norming group. The graduates of our program match well the characteristics of the ETS norm group.

Are there problems serious enough for you to reject the conclusion that the program satisfies *Quality Principle I* with regard to subject matter knowledge?

Probably not, because the evidence in favor of the conclusion is persuasive. There are two measures with reliability and validity determinations within the TEAC guidelines. With regard to the sufficiency of the two measures, each represents more than 75% of the maximum score available to the graduates. All the grades in math for 80% of the years were at or above 3.0 out of 4.0 and averaged at least 3.0 every year. The preponderance of the evidence (that is, 80% of the time and for over 75% of the 76 graduates) is consistent with the claim that they know their subject matter. The graduates in most years exceeded on average the grades earned in the math department, many of who were presumably majoring in math. The table offers no evidence that would indicate that the students are not competent in their mathematics knowledge.

Exercise 48: Apple University's claim for caring teaching skills:

The faculty members at Apple University have claimed that their graduates leave the program with the teaching skills needed to perform well in their first school placement. The evidence they share in the *Inquiry Brief* to support their claim consists of three measures: (1) scores on the state tests showing pupil gains in performance on the state content standards; (2) ratings received from the graduates' first year principals; and (3) comparison of hiring rates of the program with other similar programs in the state.

How credible is Apple University's claim? What are some rival explanations for the findings reported below? Would you conclude there was sufficient evidence to support the claim the Apple faculty made?

Apple University's evidence

Pupil gains on state tests. While the teacher education program at Apple University graduates 200 new teachers every year, only 120 of them elect to accept positions "in-state." Others take teaching positions in other states (n = 40) while others pursue life options in graduate school, in business, or in raising families (n=40). The state examinations of pupil achievement are administered only in 3rd grade and 5th grade. Of the 120 graduates who are teaching in state, only 40 are teaching at the 3rd grade or 5th grade level. The results of the pass rates for the pupils of those teachers are reported below in Table 46a:

Table 48a
Pass rates of students in 3rd and 5th grade of Apple University first-year graduates compared to state rates overall on the state curriculum test

Grade level	N	Percent passing	Percent failing
3rd grade: Apple teachers	25	70%	30%
3rd grade: Overall	2,050	55%	45%
5th grade: Apple teachers	15	65%	35%
5th grade: Overall	2,200	58%	42%

Principal survey. The Apple University faculty surveyed the principals of the 120 recent graduates of the program who were teaching. The faculty was fortunate in that of the 87 schools in which the 120 Apple graduates were employed, 60 had principals who had either graduated from Apple University as undergraduates or had studied at Apple University for their administration credentials. This situation increased the likelihood that the principals would respond to the survey instrument. The results of the survey are disaggregated in Table 48b, below:

Table 48b
Number of Apple-trained teachers rated excellent, satisfactory, and unsatisfactory on a survey of principals disaggregated by principals' affiliation with Apple University

Principals (N)	Teachers rated as "excellent"	Teachers rated as "satisfactory"	Teachers rated as "unsatisfactory"
Principals with previous affiliation with Apple University (n = 45)	12	30	3
Principals with no previous affiliation with Apple University (n = 15)	1	9	5
Total number	13	39	8

Hiring Rates. Principals and directors of personnel in schools are very conscientious about hiring new teachers who have outstanding teaching skills. It is not enough these days to be smart or to have high grade point averages. Often candidates for teaching posts must present portfolios documenting their teaching practices, and on occasion they must demonstrate their skills by offering a lesson to pupils in the school. Hiring rates are quite significant, then, in attesting to the teaching skills of a program's graduates. Apple University faculty interviewed the directors of teacher placement at 20 sister campuses within the state with programs similar to those of Apple to determine what percentages of placement represented the hiring rates of Apple's graduates. Only 13 campuses were able to provide this information. The results are arrayed below in Table 46c:

Table 48c
Number of Apple University graduates and non-Apple graduates and percentage hired in and out of state

Institution	Number of graduates	Percentage hired in state	Percentage hired out of state	Not hired
Apple University	200	60%	20%	20%
Sister institutions	650	55%	15%	30%

Exercise 48, continued: Formulate your own response to the questions posed at the outset of the exercise:

- How credible is Apple University's claim?
- What are some rival explanations for the findings reported in the tables?
- Would you conclude there was sufficient evidence to support the claim the Apple faculty made?

Use the space below for notes.

Auditing Data Tables

Exercise 49 – Three sample tables: What can we learn from the data we report?

Read the following three tables and discuss how you would interpret them. What more would you need to know in order to use this data for program improvement? *(Following these tables are sample questions the audit team raised about the tables.)*

Table 49.1: Percentage of students and faculty who agree that:

Question	Students Agree	Affiliate Faculty Agree	Ranked Faculty Agree
1. Program improvement	89%	97%	100%
2. Students are well-prepared educators	91%	98%	100%
3. Students meet state standards	70%	98%	100%
4. Students use technology	87%	77%	10%
5. Students learn how to learn	87%	95%	90%
6. Students acquire multicultural perspectives	87%	81%	50%

Table 49.2 Average Scores for Work Samples

The program prepares teachers for early elementary, elementary, K-12 (art, music), secondary, and special education. It has collected Work Sample data since 2006. What information would be useful to the program from data collected from the Work Samples?

Criteria: Written Report	Graduate average	Undergrad average
1. Nine questions addressed in the report	3.8	3.5
2. Professional appearance (professionalism)	3.8	3.4
3. Unit and lesson planning (learning theory)	3.9	3.6
4. Reflections (critical thinking)	3.8	3.9
5. Use of formal & informal assessment data to drive instruction (assessment)	3.6	3.5
6. Evidence of P-12 student achievement (learning theory)	3.7	3.8
7. Standard 1: literacy (discipline knowledge)	3.7	3.7
8. Standard 2: mathematics (discipline knowledge)	3.8	3.5
9. Standard 3: standards and assessment (assessment)	3.5	3.8
10. Standard 4: content area (discipline knowledge)	3.7	3.3
11. Standard 5: classroom & instructional management	3.5	3.6
12. Standard 6: individualization of instruction (instruction)	3.5	3.3
13. Standard 7: technology	3.5	3.3
14. Standard 8: democracy (values)	3.7	3.3

Table 49.3: Student Teaching Assessment

Proficiency	Item / Question	Midterm Rubric Score	Final Rubric Score
Communication	Interacts respectfully by showing appreciation of the perspectives of others.	3.3	3.5
Critical Thinking	Analyzes student needs and utilizes conclusions to collaborate with resource persons to best serve students.	3.3	3.8
Discipline Knowledge	Presents accurate information in the content areas he/she is teaching.	3.5	3.6
Instruction	Creates a positive and effective classroom learning environment for all students, using multiple strategies.	3.7	3.8
Assessment	Analyzes the results of on-going content assessments to plan and adjust subsequent instruction.	3.1	3.6
Professionalism	Presents as a professional in demeanor, appearance, oral and written communications.	3.8	3.8
Learning Theory	Evaluates the unique characteristics of each student and chooses appropriate instructional strategies to address various learning styles and instructional needs.	3.3	3.6
Values	Communicates with students to encourage positive behavior, such as cooperation with others , respect for rights of others, and character in challenging situations where ethical decisions are necessary.	3.8	3.8
Technology	Integrates computer technology to enhance lessons, in record keeping, and in communication.	3.1	3.6

Answer Key to Exercise 49, Auditing Data Tables

Table 49.1 *– Possible questions asked by auditors considering the reported data.*

1. *Where do these data come from?*
2. *How many students, affiliate faculty, and ranked faculty are represented by these percentages?*
3. *When did these people respond to these items? What were responses like over time?*
4. *On what basis did participants "agree" that: (1) there was program improvement, (2) students are well prepared, (3) students meet state standards, (4) students use technology, (5) students learn how to learn, and (6) students acquire multicultural perspectives?*
5. *What does "program improvement" (row 1) mean?*
6. *What percentage of agreement does faculty want for a question? What response did the program faculty make to the 70% of students in agreement that they meet state standards? What response was made to the 77% of affiliate faculty and 10% of ranked faculty in agreement that students use technology?*
7. *What does "use technology" (row 4) mean?*

Table 49.2 *– Possible questions asked by auditors considering the reported data.*

1. *What is the scale for the responses?*
2. *How many graduate students? How many undergraduate students?*
3. *How do students from the various program options respond to this assessment?*
4. *What year(s) are being reported? Are there differences over time for each item?*
5. *What are the high/low scores for each item? What is the standard deviation of the scores?*

In response to a Clarification Question, the program responded that the Graduate Average was compiled from scores of 12 students: 1 in 2006, 3 in 2007, 6 in 2008, and 2 in 2009. The Undergraduate Average was compiled from scores of 6 students: 3 in 2007, 2 in 2008, and 1 in 2009. The program includes preparation for early elementary, elementary, K-12 (art, music), secondary, and special education. Work Sample data have been collected at least since 2006. What information would be useful to the program from data collected from the Work Samples?

Table 49.3 *– Possible questions asked by auditors considering the reported data.*

1. *What is the scale for the responses? What are the high/low scores for each item? What is the standard deviation of the scores?*
2. *How many students are included in the averages? Are the students graduate or undergraduate? What program option? Are there differences in the ratings for students in different program options? For graduate and undergraduate students?*
3. *Who is scoring the student teaching assessment? Is this a compilation of ratings by cooperating teachers and university supervisors? How do scores from the cooperating teacher and university supervisor differ for each item?*
4. *What year(s) are being reported? Are there differences over time for each item?*