Entertainment Technician Certification Program

Bringing the Entertainment Technician Certification Program to Your Region

The Entertainment Technician Certification Program (ETCP), which serves North America, focuses on disciplines that directly affect the health and safety of crews, performers, and audiences. Technicians may become certified through ETCP in the following areas: **Rigger – Arena**, **Rigger – Theatre**, and **Entertainment Electrician**. To gain certification, technicians must qualify to sit for, take and pass a 150 question examination. The examinations, which are written in English in a multiple-choice format, include questions which address regulations, standards, and codes in North America, but can be can be adapted to other regions.

Why should we adapt the ETCP examination(s) for our region rather than develop our own?
Developing certification programs and the examinations that accompany them from ground zero is quite expensive. Adapting an examination is usually more economical and takes much less time than preparing a new test. Test development and validation can take several years and require substantial amounts of money to perform tasks such as conducting an industry-wide job task analysis, field testing, compiling technical information and setting passing points for test forms. By adapting an already existing examination much of the legwork has already been done.

The global entertainment technology industry is quite small and operating under the same certification model creates a labor pool that is recognized by employers as qualified to work cross-regionally. By adapting the ETCP examination(s), certified technicians would join a community of over 1,400 certificants acknowledged as the leaders in the industry.

We want to bring ETCP to our region; what do we have to do?
The first step, and perhaps the most important, is to ascertain the level of commitment from all of your stakeholders. ETCP had substantial interest in the concept of certification from potential candidates, employers, venues and unions and this proved necessary to move forward. It is also recommended that you do a survey to determine the size and level of experience of your candidate pool. These certifications are for upper level practitioners and require that candidates have at least 3,000 hours of experience in the area being tested to qualify to sit for the examinations. It is important to determine if the size of your candidate pool warrants the investment of time and resources required to develop, support and maintain a certification program in your region.

ETCP strongly recommends, if you wish to proceed, that you form a group to oversee the program whose responsibilities will include championing the program, appointing Subject Matter Experts (SMEs) making policy decisions, raising funds, administering a budget, hearing appeals and disciplinary issues, approving certification renewal credits, and steering Provider Recognition programs.

Members of this group should come from upper level management and represent all facets of entertainment industry organizations and businesses. They should represent the key stakeholders in the program - potential candidates, those who employ them and those in whose facilities they work. While these individuals must obviously have extensive knowledge of the industry, they do not need to be working riggers or electricians.

A look at the makeup of the ETCP Council can provide some guidance for putting together an oversight body. Organizational members include senior volunteer leaders or staff from professional societies of entertainment technicians; labor unions; trade associations representing companies working in all aspects of the industry including live entertainment, film and broadcast, audio-visual, and themed entertainment; and organizations representing venue managers, owners, and operators. Business members should include senior management from key employers in the region including producers, touring companies, venue operators, and installation and production companies.

Working riggers and electricians should be represented on the oversight body by the chairs of your subject matter expert groups. As the focus of the oversight group is on policies and procedures not technical details, it is sufficient to have only a few key representatives of those populations as members of the group.

You may also choose to invite select individuals to join the group who bring unique experience or skill sets in areas such as program development, marketing and fundraising, legal, education and training.

You will also need an individual who will take responsibility for the day-to-day running of the certification program in your region. Some examples of the individual's responsibilities include coordinating with the ETCP Certification Manager, arranging meetings for your oversight group and your SMEs, providing information to the testing company, setting up testing locations and/or scheduling paper and pencil examinations, reviewing applications, conducting correspondence with the applicants/certificants, and marketing the program. As the program grows, so will the responsibilities of this individual.

Would we need to market the program?
ETCP spends considerable time and energy promoting our three certifications and this has been crucial to the success of the program. Marketing is targeted at and builds awareness among potential candidates and their employers as well as regulatory authorities, risk managers, and customers. ETCP uses print ads, trade shows, direct mail-outs, social networking, and email blasts to contact interested parties.

What does adaptation of an examination mean?
Testing programs are unique in that they are designed to fit the specific characteristics of a population in a way that measures the intended concepts as precisely as possible, so customization would be necessary to bring the examinations to a region other than North America. This would include accommodating the variations in language characteristics as well as incorporating the differences in industry standards, codes and regulations. In addition to adaption, the examinations may be translated into other languages, though it is a more complicated process.

Adapting the test means it is necessary to evaluate the Content Outline as well as the items in the test bank to confirm that the intended properties (e.g. content, difficulty and meaning) of the examinations will perform properly cross-culturally. Adapting an existing examination instead of developing a new one has both advantages and disadvantages. By adapting, the parties involved are able to compare the already-existing data regarding the item bank with newly acquired data, and custom-fit the examinations to a certain region. Adaptations also can significantly conserve time and expenses.

A possible disadvantage of adaptation might be the risk of imposing conclusions based on concepts that exist in one culture but may not exist in the other. There are no guarantees that the concepts in the original culture exists in the target culture. Another disadvantage of adapting existing tests for use in another culture is that if certain constructs measured in the original version are not found in the target population the resulting scores could prove to be misleading. Despite the potential difficulties associated with using adapted instruments, it is a common and accepted practice in the world of certification.

It is important to remember that certain concepts and behaviors may have different meanings across cultures and this, along with metric conversion, would have to be considered in order to avoid discrimination against one cultural group or another. You must also consider that your codes, standards and regulations differ from those in North America and that some of the questions would need adjustments to guarantee that the safety issues in your region are addressed.

When adapting the test in a region to a new region, it is crucial that the security of the examinations remains intact. The examinations cannot be released to any group without signed confidentiality agreements on file and all information is transmitted in secure files.
(See Appendix A, Steps for Adaption)

What is a psychometric firm and why must we work with them?
Each of the three examinations was created with the assistance of a psychometric firm. Psychometrics is the field of study concerned with the theory and technique of psychological measurement which involves the measurement of knowledge and abilities. This involves two major research tasks: the construction of instruments and procedures for measurement and the development and refinement of theoretical approaches to measurement. By working with a psychometric firm, ETCP can be certain that the examinations are of the highest quality and are constructed based on established certification and testing standards, are free of bias, are continually monitored for integrity and relevance to current industry practice, that security is maintained, and that the examinations are legally defensible.

ETCP chose Applied Measurement Professionals (AMP) after an extensive search process. AMP provides certification organizations, government agencies, professional associations and private industry with innovative assessment and management solutions. AMP has 25 years of experience and over 100 clients representing a wide range of professional occupations.

All adaptions and/or translations of the ETCP examinations must be coordinated through AMP. AMP assists in ensuring that the adaptation process takes full account of linguistic and cultural differences among the populations for whom adapted versions of the test are intended. They also apply appropriate statistical techniques to establish the equivalence of the different versions of the test, and identify problematic components or aspects of the test which may not serve the intended populations properly.

AMP provides psychometricians who assist in development of the examinations and help to ensure the overall integrity of the certification program by performing the following activities in relation to each area of testing: job analysis, development of examination specifications, item writing, examination development, standard setting, examination administration, and scoring and reporting of test results.

AMP's psychometricians suggest the first step is to review ETCP's current examination content outlines and conduct a study to validate that the test content is applicable in your region. This is done through a committee-based job analysis. AMP and ETCP will review the current content outline with a committee of Subject Matter Experts (SMEs), appointed by your oversight group and approved by ETCP, to assess

the appropriateness of the current examination content to practice in your region. AMP will work with the SMEs to review relevant background information, identify appropriate regions/populations, identify content areas suitable for use on the examinations and areas of deficiency, and prepare a written report with recommendations for delivery in your region. If you feel that additional input is needed beyond the group of 10-12 SMEs, AMP can conduct the study as described and survey a larger number of practitioners (up to 100) to further validate the content outline.

The psychometricians also consult with other departments within AMP to ensure that all aspects of the program are being performed in a manner consistent with standards relating to the certification and testing industries.

What are SMEs and why do we need them?
A Subject Matter Expert (SME) is a person who is an expert in a certain area or topic. In general, the term is used when developing materials (a book, an examination, a manual, etc.) about a topic, and expertise on the topic is needed by the personnel developing the material. For example, tests are often created by a team of psychometricians and a team of SMEs. The psychometricians understand how to engineer a test while the SMEs understand the actual content of the examinations.

SMEs will need to be selected to insure the examination content is applicable to the projected audience. Experts are necessary because, with tests that are developed in one culture and used with another culture, there is potential for misinterpretation unless all cultural issues are considered. The SMEs' job is to identify and resolve the differences in technical terms, industry practice, and codes, standards and regulations. The number of experts on the panel may vary, but 10-12 is recommended per examination.

SMEs can be chosen from any areas of the entertainment industry as long as they are experts in their field. The SMEs should be a diverse group with experience across multiple sectors of the industry. When choosing SMEs, you should first consider his or her professional achievements and credentials and establish whether he or she is actually an expert in the fields of Arena Rigging, Theatre Rigging or Entertainment Electrical.

ETCP's SMEs served on a volunteer basis and there is a considerable time commitment involved. The SMEs must be available for a one-day item-writing workshop conducted by AMP (either in person or via Web-ex) in which they are taught the techniques of properly constructing questions. This is a detailed and exacting process and critical to the quality of the examinations. The process of reviewing questions in the existing item bank and adapting them if required, again led by AMP, will take at least a couple of days of the SMEs time depending on how

many questions need to be adapted. There may also be homework assigned to the SMEs at the conclusion of the meetings. The item review/adaptation meetings can take place via Web-ex or in person. For all meetings held in person, the region will be responsible for additional charges for travel time and expenses for the required AMP staff.

One test form of an examination includes 150 multiple-choice questions. It is recommended that, if possible, you adapt additional questions so candidates taking the examination more than once are not given the exact same test form each time.

Once the examinations have been constructed, the SMEs will take the tests and provide additional verbal information to AMP about the questions which then is used in evaluating the quality of the responses and to help determine whether the questions are generating the information intended. The SMEs and AMP will then revise and/or edit any questions that prove problematic. This may be conducted as a Web-ex meeting and more than one meeting may be necessary.

As the SMEs will have both written and taken the examination(s) prior to its release, there is little point in asking them to sit for the examination again. The oversight group may choose to award the SMEs their certifications along with the first group of "non-involved" individuals who take and pass the test. These SMEs should however be required to recertify in five years in the same manner as all certificants.

ETCP has had a great deal of interest in the 50 question practice examinations that are available online. We found that these are excellent tools for self-assessment and have increased the number of candidates. If you are interested in offering practice examinations, these would need to be vetted as well.

In addition to the initial time commitment, the SMEs will need to be accessible for on-going examination maintenance. On-going maintenance includes (but is not limited to) such tasks as vetting candidate comments that refer to the questions, reviewing poorly performing questions, and future exam development. It is recommended by the testing company that new test forms are added after five years or 500 candidates, whichever comes first; however if this number of candidates is not reached within a reasonable amount of time, it will be up to the particular region to decide if changes in technology or codes and regulations necessitate an update in the content outline and/or the questions.

How are the examinations given?

AMP recommends that a group of at least 50 candidates be tested at the first administration of the examination(s) to allow for optimal results and proper scoring. This administration can consist of one large group or several smaller groups to achieve the number required.

Examinations offered in English are available at computer-based testing centers established by AMP. For a list of international testing centers, visit: http://www.goamp.com/displayTCList.aspx?pExamID=20980. AMP has worked with ETCP to open new testing centers at our request.

The examinations are also available in paper and pencil form. These paper and pencil administrations must be administered by a proctor that is sanctioned by AMP. This makes certain that all testing conditions and strategies are similar to those examinations given in North America. (See Appendix B, Test Specifications).

AMP requests at least 90 days to set up a test administration and examinations that are cancelled less than 45 days before will incur a fee of USD $350.

International paper and pencil examinations operate under the following price structure:
    Examinations at a client site: USD $1,050-$1,325
    Examinations at an AMP arranged site: USD $1,525-$1,775

Test Adaption – Administered in English

The following steps would need to be followed for an English test adaption for a region outside of North America:

1. Region identifies a team of Subject Matter Experts (SMEs).
2. AMP Administers a SME-based job analysis to review the Content Outline(s). It is necessary to assess the appropriateness of the current examination content to regional practice and determine content areas that are suitable for use in the region as well as areas of deficiency. This may be expanded to receive input from a larger population.
3. AMP prepares a written report on the above findings for delivery to the region.
4. AMP trains the SMEs to enhance their item writing skills. This one-day training may be administered through Web-ex or in person.
5. SMEs and AMP evaluate current questions to make sure they are relevant to adapted content outline. Questions which are deemed not to be relevant will be rewritten at this time by the SMEs under the guidance of AMP. This meeting may be conducted via Web-ex with AMP staff, but AMP recommends evaluating the questions in person. This is usually a two-day process. AMP may assign homework to the SMEs at the conclusion of this meeting. To maintain test security, the questions are not released to the SMEs prior to this meeting. Steps 4 and 5 may take place on consecutive day.
6. AMP performs pretesting and cognitive interviewing tasks. The SMEs will sit for the tests as they are written allowing data to be collected. Cognitive interviewing involves an administration of draft survey questions to the SMEs while collecting additional verbal information about the survey responses, which is used to evaluate the quality of the response or to help determine whether the question is generating the information that its authors intend.
7. SMEs and AMP revise and/or edit any questions that prove problematic. This will conducted as a Web-ex meeting. More than one meeting may be necessary.
8. AMP and region offer first administration of the exam(s). It is recommended that a group of 50 test at this time for optimal results; data can be collected with smaller groups, but it is not recommended. You may choose to administer one test with a large group or offer several administrations with smaller groups to

make your numbers – both are acceptable. Examinations will not be scored until the desired number is reached.

9. AMP determines the passing point of the examinations based on the statistical analysis of the exam results. Score reports are delivered to the candidates in 4-6 weeks.

10. Examinations are ready to be administered on demand at testing centers, after candidate approval submission to AMP, or via prearranged paper and pencil examinations for ten or more candidates.

APPLIED MEASUREMENT PROFESSIONALS

Testing Room Set Up Instructions

(Appendix B)

Entertainment Technician
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The following criteria must be met when arranging for room set up for an AMP Examination:

1. Specify "CLASSROOM STYLE" room set up.

2. The assigned testing room must be of sufficient size to allow one six or eight foot long table for every two examinees. A maximum of two examinees may be seated at each six or eight foot table. If tables are less than six feet long only one examinee may be seated at each table.

3. Tables must be placed individually with an aisle in between. Do not place tables in long adjoined rows. A minimum of four feet must be maintained between each table and the next in all directions. (See the Room Set-Up diagram on Page 2.)

4. If the assigned testing room is one that can be separated into smaller sections with moveable partitions, the entire room must be reserved for the examination. If only a portion of the room is used do not allow another function of any kind to be scheduled in an adjacent portion of the room. This may cause a disruption.

5. Tables may be clothed, but not skirted.

6. Tables must be clear of any items including water pitchers and glasses, note pads, pens or pencils, etc.

7. Place tables and chairs at the front of the room for the test administration staff. One head table with two chairs will be required, plus one for each 50 examinees scheduled.

8. Place tables with two chairs each immediately outside of the entrance to the room for registration. One registration table with two chairs will be required for each 50 examinees scheduled.

9. Place a podium with a microphone at the front of the room. (This may not be necessary depending on the size of the room and number of candidates.)

10. Place a marker board or easel with paper and a marker at the front of the room visible to the examinees.

11. No food or drink will be allowed in the testing room. If a refreshment station is ordered it must be placed outside of the room.

All examinations require a standardized testing environment, set up as similar as possible to a real classroom. By following the above criteria you can help insure a successful administration.

Applied Measurement Professionals
SAMPLE Testing Room Set-up

Maximum allowable seating is two chairs per six foot table

(Head Tables)

(Podium/Microphone)

(Work Tables)

(Work Tables)
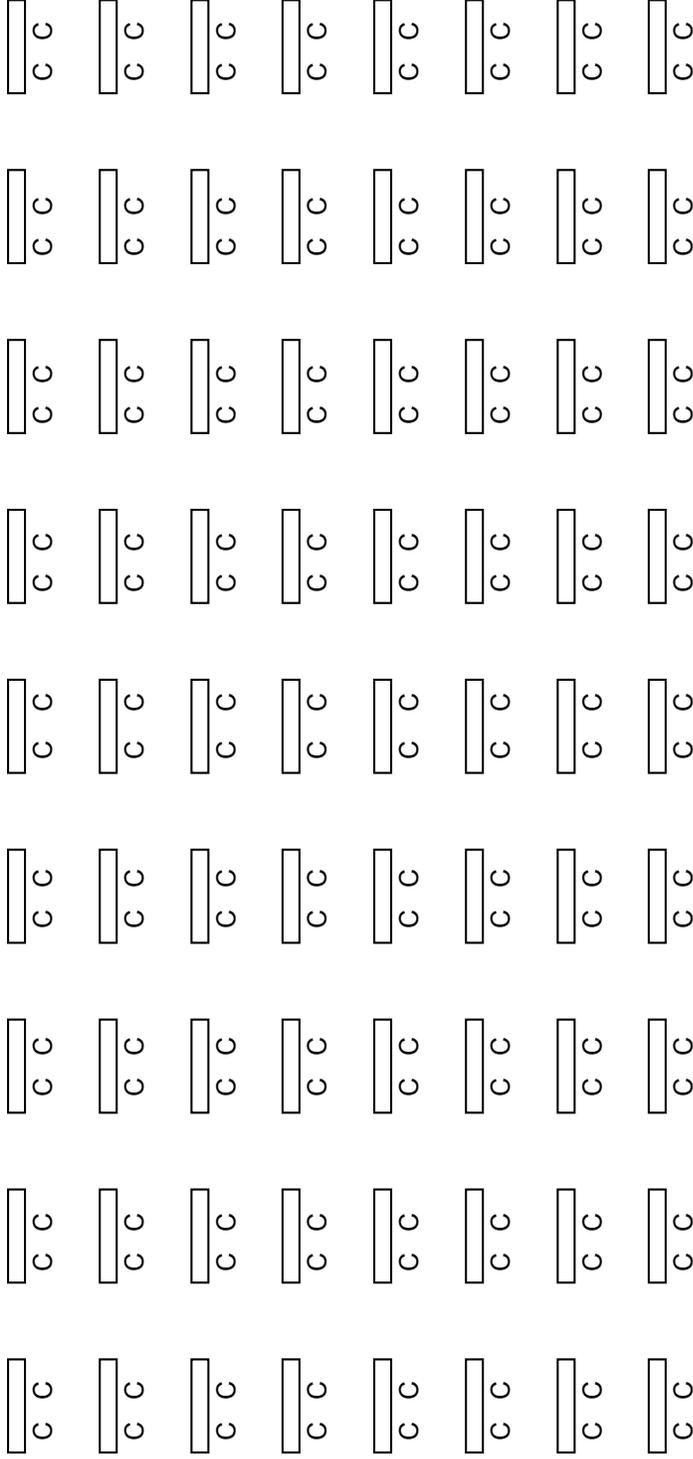
(Registration tables outside entrance)