Study Guide

for

Estill Master Trainer

Phase One Examinations

Per Certification Manual, Version 5.0, 2018,
and Exam revisions that will go into effect no later than August 11, 2019.

Getting Started

Begin your preparations by studying the most recent edition of the **Certification Manual, 5.0**. Be advised that clarifying edits are added without a new release announcement; the most recent version is always available for download from www.estillvoice.com. Study Sections II and IV carefully. Questions from both the *Core Values and Practice Standards* and the *Estill Master Trainer* pages may appear on your written exam.

Continue by studying the Level One and Two Workbooks. The Written Exam will focus on the content of your course workbooks and observations made and notes taken during the Level One and Two Courses that you have attended. Please remember that you are studying for an EMT exam and not an EMCI exam. Practice every Figure for Voice Control in Level One with Hand Signals and work through each step of the Figures for the Qualities in Level Two. Working each part of a Figure on 5 vowels, through a wide range of pitches, and with different Body-Cover Conditions (when called for) is excellent preparation for the Estill Voiceprint Plus EMT testing protocol.

See Section IV.D. of the **Certification Manual, 5.0**, for additional suggestions and use the worksheets in this Study Guide to support your preparation. If you have not already done so, purchase Estill Voiceprint Plus.

Worksheet Warning

The worksheets in this Study Guide will help prepare you for the scope of knowledge you will need to answer the questions you find in the exam. Please remember that the worksheets contain *sample* terms, *sample* concepts, *sample* questions. There is no guarantee that any of these terms, concepts, or questions will appear in your exam. Review your Workbooks; review your notes. There may be questions from discussions and lectures that expand upon the content in the Workbooks.

Estill Voiceprint Plus & Hand Signal Testing Protocol

The EMT Voiceprint Protocol appears below. All options must be accompanied by appropriate Hand Signals. Applicants must practice this protocol with the Estill Voiceprint Plus program. The applicant should select an octave range (A-A, C-C, E-E) to use for the recordings and should make sure that the selected range works for all tasks since these pitches may not change from task to task. Quality scales will remain in the chosen key; applicants may choose to sing ascending or descending scales. 30 second song excerpts can be in any key. Please note that some tasks call for options on the low *or* high pitch; others call for options on *both* the low and the high pitch.

A Key to Symbols appears on page 6, following the 57 protocol tasks.

File	Voiceprint Label	A/C/E	Rating & Notes
	Estill Siren		
1	Initial Siren on / ŋ / at least a 1.5 Octave Range		
	True Vocal Fold Onset/Offset		
2	Glottal: **i** || **a** || **u**	L H	
3	Aspirate-abrupt: **i** || **a** || **u**	L H	
4	Aspirate-gradual: **i** || **a** || **u**	L H	
5	Smooth: **i** || **a** || **u**	L H	
	False Vocal Fold		
6	Mid→Constrict→Mid→Retract: **i** || **a** || **u**	L	
7	Mid→Constrict→Mid→Retract: **i** || **a** || **u**	H	
	True Vocal Fold Body-Cover		
8	Thick→Stiff→Thin: **i** || **a** || **u**	L	
9	Thick→Stiff→Thin: **i** || **a** || **u**	H	
10	Thick→Slack: **i** || **a** || **u**	MCP	
	Thyroid Cartilage		
11	Vertical→Tilt: **i** || **a** || **u**	L	
12	Vertical→Tilt: **i** || **a** || **u**	H	
	Cricoid Cartilage		
13	Vertical || Tilt: **i** || **a** || **u**	L	
14	Vertical || Tilt: **i** || **a** || **u**	H	
	Larynx		
15	Mid→High→Mid→Low: **i** || **a** || **u**	L	
16	Mid→High→Mid→Low: **i** || **a** || **u**	H	

File	Voiceprint Label	A/C/E	Rating & Notes
	AES		
17	Wide→Narrow AES with Mid Velum: **ĩ** || **ã** || **ũ**	L H	
18	Narrow AES with Mid→High Velum: **ĩ→i** || **a→ã** || **ũ→u**	L H	
	Velum		
19	Low→Mid→High→Mid→Low: **ŋ→ĩ→i→ĩ→ŋ** (abrupt change)	L H	
20	Low→Mid→High→Mid→Low: **ŋ→ã→a→ã→ŋ** (abrupt change)	L H	
21	Low→Mid→High→Mid→Low: **ŋ→ũ→u→ũ→ŋ** (abrupt change)	L H	
22	Low→Mid→High→Mid→Low: **ŋ→ĩ→i→ĩ→ŋ** (gradual change)	L H	
23	Low→Mid→High→Mid→Low: **ŋ→ã→a→ã→ŋ** (gradual change)	L H	
24	Low→Mid→High→Mid→Low: **ŋ→ũ→u→ũ→ŋ** (gradual change)	L H	
	Tongue		
25	High || Mid || Low || Compress: **i** || **a** || **u**	L	
26	High || Mid || Low || Compress: **i** || **a** || **u**	H	
	Jaw		
27	Forward || Mid || Back || Drop: **i** || **a** || **u**	L	
28	Forward || Mid || Back || Drop: **i** || **a** || **u**	H	
	Lips		
29	Protrude || Mid || Spread: **i** || **a** || **u**	L	
30	Protrude || Mid || Spread: **i** || **a** || **u**	H	
	Head & Neck		
31	Relax→Anchor: **i** || **a** || **u**	L	
32	Relax→Anchor: **i** || **a** || **u**	H	
	Torso		
33	Relax→Anchor: **i** || **a** || **u**	L	
34	Relax→Anchor: **i** || **a** || **u**	H	
	7-Part Figure		
35	ŋ→ nasal vowel→ nasal twang→ oral twang→ anchor→ low larynx→ compress tongue	L	
36	ŋ→ nasal vowel→ nasal twang→ oral twang→ anchor→ low larynx→ compress tongue	H	

File	Voiceprint Label	A/C/E	Rating & Notes
	Speech		
37	**i→a→u** on each step of a Major scale (same octave as other tasks)		
38	Sing "Happy Birthday" (same octave as other tasks)		
39	30 second song excerpt (applicant's choice)		
	Falsetto		
40	**i→a→u** on each step of a Major scale (same octave as other tasks)		
41	Sing "Happy Birthday" (same octave as other tasks)		
42	30 second song excerpt (applicant's choice)		
	Sob		
43	**i→a→u** on each step of a Major scale (same octave as other tasks)		
44	Sing "Happy Birthday" (same octave as other tasks)		
45	30 second song excerpt (applicant's choice)		
	Nasal Twang		
46	**i→a→u** on each step of a Major scale (same octave as other tasks)		
47	Sing "Happy Birthday" (same octave as other tasks)		
48	30 second song excerpt (applicant's choice)		
	Oral Twang		
49	**i→a→u** on each step of a Major scale (same octave as other tasks)		
50	Sing "Happy Birthday" (same octave as other tasks)		
51	30 second song excerpt (applicant's choice)		
	Opera		
52	**i→a→u** on each step of a Major scale (same octave as other tasks)		
53	Sing "Happy Birthday" (same octave as other tasks)		
54	30 second song excerpt (applicant's choice)		
	Belt		
55	**i→a→u** on each step of a Major scale (same octave as other tasks)		
56	Sing "Happy Birthday" (same octave as other tasks)		
57	30 second song excerpt (applicant's choice)		

Voiceprint Testing Protocol: Key to Symbols
→ = continue without a break || = put a break between tasks
~ (over vowel) = with Mid Velum
L = low pitch of octave H = high pitch of octave
MCP = most comfortable pitch

Study Guide for Acoustics Questions

The Estill Voice Model is based on scientific principles. Acoustic terminology and principles run through both Workbooks. As an EMT you will be expected to know enough about the acoustics of voice and speech to offer accurate explanations of how the voice works and to connect "What do you hear?" questions to "What do you see?" questions when using Estill Voiceprint Plus as a training tool. The applicant is encouraged to use the space provided to make notes regarding the following terms that appear in the Workbooks and on the EVPP Screen.

Term	Definition/Answer
Power	
Source	
Filter	
Frequency	
Pitch	
Fundamental Frequency (F_0)	
Harmonics	
Intensity	
Loudness	
Hz	
kHz	
dB	
Signal	
Sound waves	
Tone	
Noise	

Interharmonic noise	
Bernoulli effect	
How do true vocal folds vibrate?	
How does vocal fold vibration generate tone?	
How does closed phase relate to subglottal air pressure?	
Formants	
Voice quality	
Vowels	

Study Guide for Basic Anatomy & Physiology of Voice

The physiology of voice & speech production is complex. As an EMT you will be expected to know enough about the anatomy and physiology of voice and speech to answer students' questions and clarify their understanding of respiration, phonation, and articulation. You will also be expected to connect a student's experience of "What do you feel?" to specific structures and actions. The applicant is encouraged to use the space provided to make notes regarding the following terms that appear in the Workbooks. During the written examination, the applicant for *EMT* will be required to label anatomical structures involved in voice and speech production and describe their biological functions.

Term	Definition
Identify the following: -Larynx -Trachea -Bronchi -Lungs -Diaphragm -Abdominal Cavity -Thoracic Cavity	
Name all the cartilages of the larynx and describe how they fit together	
Discuss the biological functions of the larynx	
Identify the following: Nasopharynx Laryngopharynx Oropharynx	

Explain how breathing works – what moves breath in and out of the lungs.	
Where is the diaphragm and how does it move as we breathe, speak, sing?	
What is REL?	
What is the difference between Tidal, Speech, and Performance Breathing?	
Draw a side view of the tongue and identify: -Tip -Blade -Dorsum -Root or Base of Tongue	
Describe the layered structure of the true vocal fold and what comprises the "body" and "cover"	
Prepare to identify the following muscles and discuss their role in pitch raising and lowering: -Medial thyroarytenoid -Lateral thyroarytenoid -Cricothyroid -Superior Constrictor -Middle Constrictor -Inferior Constrictor -Suprahyoids (as a group) -Infrahyoids (as a group)	
Identify these structures and their functions during speech and swallowing: -Velum -Velo-pharyngeal port -Hard palate -Soft palate -Uvula	

Identify the following: -Sternum -Clavicle -Scapula -Rib cage -Pelvis	
Label the following: -Maxillae -Mandible	
Label the following: -Pectoralis Major -Latissimus Dorsi -Quadratus Lumborum -Sternocleidomastoid	
Describe the 3 levels or layers of protective closure in the larynx and under what conditions these various levels participate in closure.	
Name the structures involved in the production of speech sounds (vowels and consonants).	

Study Guide for Estill Voice Training Concepts, Principles and Applied Physiology

During the written examination, the applicant for *EMT* will be required to label anatomical structures, describe the physiology of each structure, and explain each option's contributions to voice quality. During the Oral Exam Question portion of this examination, the applicant will be called upon to provide a description and demonstration of one Figure from Level One and on Figure from Level Two, chosen at random. Careful review of Level One and Two Course Workbooks and personal notes taken during courses should be sufficient to prepare for these questions. The following terms and questions are provided as a study guide. The applicant is encouraged to use the space provided to make notes.

Term	Definition
List and explain the Guiding Principles of EVT	
List and explain the Operating Principles of EVT	

Describe each of the following: Craft, Artistry, Performance Magic	
Why did Jo Estill say “Speaking and Singing are Unnatural Acts”?	
Name the 4 original voice qualities observed in Jo Estill´s X-rays in 1981.	
How does each component, Power, Source, and Filter contribute to voice production?	
Name the 13 Structures included in EVT	
If voice production is complex and dynamic, how does Estill Voice Training simplify the learning process?	
What are Attractor States?	
Give an example of an attractor state in voice production.	
How can knowledge of voice quality benefit teachers and performers?	
Define Magnitude Estimation and how we measure kinesthetic perception in EVT?	
Discuss the role of Effort as it pertains to Estill Voice Training	
List the guidelines for monitoring Effort	
List the 9 Relaxation Maneuvers and describe their intended effects.	
List the Rules for Monitoring Effort in Vocalization	
What are the risks in high intensity speaking and singing, and, how does Estill Voice Training reduce them?	
What are the triggers for False Vocal Fold Constriction?	

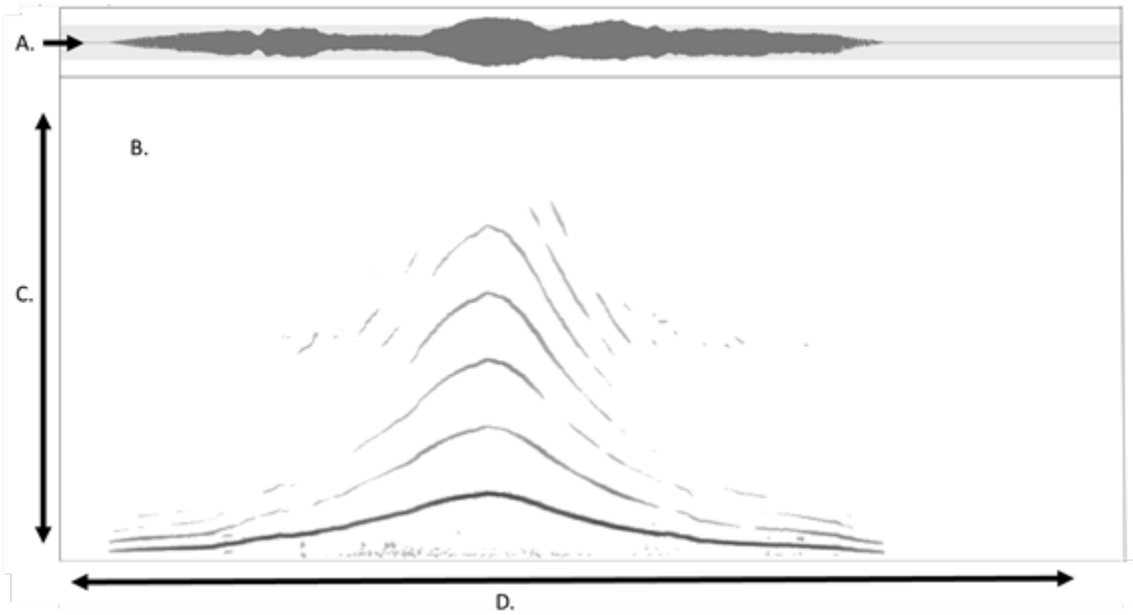
Explain why breathing is dynamic.	
Explain why breathing can be voluntary or involuntary	
Name the three layers of protective closure in the larynx	
Define inhalatory and exhalatory muscles and their functions during respiration.	
What is a recoil breath?	
When might ‘belly breathing’ be advantageous?	
When might ‘chest/clavicular breathing’ be advantageous?	
Name at least one Estill Principle that applies directly to the role of “breath control’ in voice production	
List the structures, intrinsic and extrinsic muscles involved in pitch production and describe their contributions	
What is a voice break?	
Explain the application of Effort in Pitch Production	
Explain the physiology and coordination between breath and muscle work for the Onset/Offset conditions.	
What muscles open the glottis?	
What muscles close the glottis?	
What muscles allow the FVFs to be opened and closed independently?	
List the options for FVFs and describe the physiology of each.	

List the options for TVF: Body-Cover Control and describe the physiology of each.	
List the options for Thyroid Cartilage and describe the physiology of each.	
List the options for Cricoid Cartilage and describe the physiology of each.	
List the options for Larynx and describe the physiology of each.	
List the options for Velum and describe the physiology of each.	
List the options for Tongue and describe the physiology of each.	
List the options for Aryepiglottic Sphincter and describe the physiology of each.	
List the options for Jaw and describe the physiology of each.	
List the options for Lips and describe the physiology of each.	
List the options for Head and Neck and describe the physiology of each.	
List the options for Torso and describe the physiology of each.	
What is the recipe for the Estill siren?	
Why is the Estill siren useful?	
What is a Miren?	

List all structures with the option (or options) required for Speech Quality.	
List all structures with the option (or options) required for Falsetto Quality.	
List all structures with the option (or options) required for Nasal Twang Quality.	
List all structures with the option (or options) required for Oral Twang Quality.	
List all structures with the option (or options) required for Sob Quality.	
List all structures with the option (or options) required for Cry Quality.	
List all structures with the option (or options) required for Opera Quality.	
List all structures with the option (or options) required for Belt Quality.	

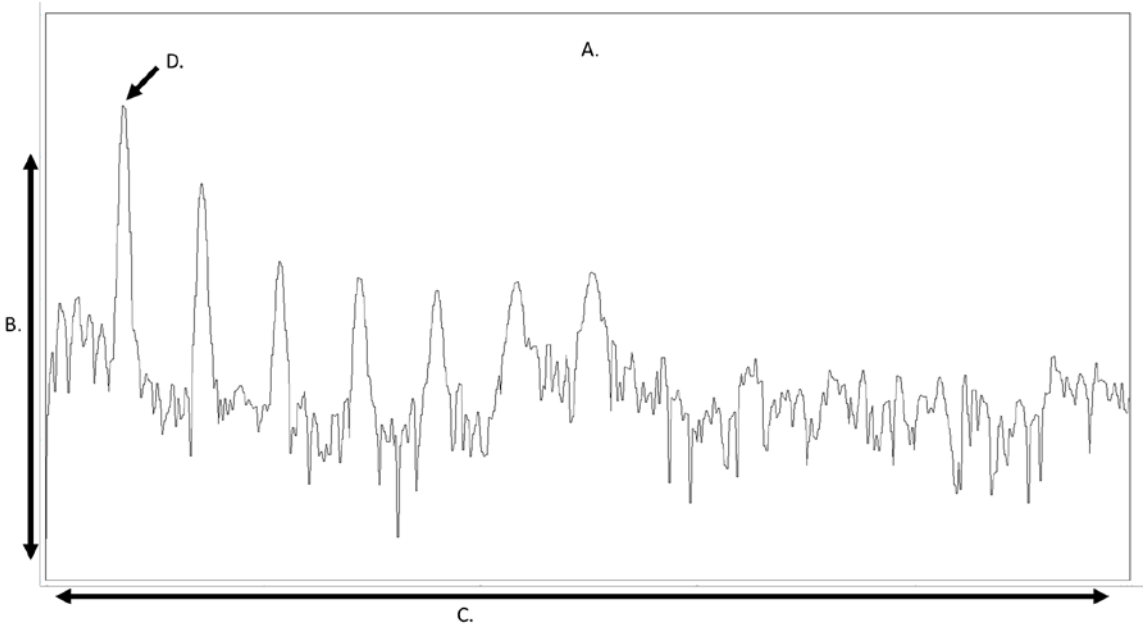
Study Guide for Voiceprint Displays

Look at the image below and name displays A and B and label the measures and units of measure that would appear along lines C and D.



In general terms, what would you hear in the sound analyzed above?

Look at the image below and name its display (A.). Label the measures and units of measure that would appear along lines B and C.



What is seen in the lines indicated by arrow D?

Study Guide for Common Voice Problems

During the examination, the applicant will be presented with a series of audio samples that include common speech and singing problems. The applicant will be asked to identify the problem and one *Figure for Voice Control*, or Figure option that might be used to alleviate the problem. Listed here are some examples of common problems. The problems presented during the examination may not appear below. It is recommended that the applicant use this study guide to practice the kind of problem-solving required to apply the Figures in studio, classroom, or clinic. The applicant should understand that there is rarely only one correct answer. That said, the applicant must present a clear rationale for any "solution" proposed.

Problem	Possible Cause	Figure/Option Solution	Rationale
Restricted high range			
Flatting			
Unwanted "flip"/ voice break between Thick and Stiff folds			
Low range fades out			
Thin high notes			
Too soft in general			
No vibrato			
Excessive vibrato			
Strained production			
Breathy tone			
Hypernasal tone			
Too bright, shrill			
Too soft in high range			
Too loud in high range			
Too dark			
Unintentional instability in certain portions of the range.			

Figure Demonstration:

For this recent addition to the EMT examination, the applicant for EMT should prepare to describe and demonstrate every Figure for Voice Control and Figure for Voice Quality. *Figures in a Flash* and *Level One and Two Workbooks* are excellent resources to consult for preparation. They may not be used for reference *during* the exam.

The examiner will provide the applicant with copies of two Figures during the exam: one from Level 1 and another from Level 2. The applicant should prepare to describe relevant anatomy and physiology, actions and conditions, prompts, perceptions, and recipes. The applicant will demonstrate every part of the Figures assigned while using Hand Signals and Estill Voiceprint Plus.

Ideally, the applicant will bring and use their own computer. (iPads do not run EVPP.) The applicant may arrange to use the examiner's computer if the platform – PC or Mac - is familiar. Applicants should be comfortable running the program and adjusting the displays from spectrogram to power spectrum, with and without resonance analysis. Applicants must be prepared to point out and explain the aspects of the displays that are relevant to the Figure being demonstrated.

Good Luck in your Phase One Examinations!

Looking Ahead: Reminders for Phase Two Observations

During your EMT Observations you will use **Estill Voiceprint Plus**.

When you are doing observations in a Level One Course, you will be expected to guide participants during their **Make & Move Larynx** assembly. Make sure that you can put a "Make & Move" together correctly, without hesitation, and with strategies in mind to make this project easier for the course participants.