

WHY DIDN'T YOU LEARN THIS AT RECORDING SCHOOL: CRITICAL COMMENTS BY EMPLOYERS

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This article explores the optional clarification sections of my 2013 doctoral dissertation [1] that asked Employers about the skills their New Hires possessed. The Employers of the doctoral dissertation reported that their New Hires were lacking communication and listening skills. A review of the literature shows that a need for these communication skills has been present since the late 1980s, and that engineers in the industry have placed some of this blame on the curriculum of formal Audio Engineering Technology (AET) programs. The mixed-methods survey instrument from the original doctoral study was re-analyzed in order to focus on the specific optional clarification comments made by Employers. The results of this re-analysis showed that the New Hires lacked the essential communication skills Employers' wanted. It was concluded that the New Hires current curriculum failed to teach communication and listening skills, and that the absence of a situated recording studio environment was one of the major factors. This paper also identifies the need for more research that includes the Employers and New Hires and directly involves AET educators and their institutions.

INTRODUCTION

In my classroom, I often ask aspiring engineers the dreaded question: what do you do when the client is singing out of tune? This often sparks healthy conversation about how to approach the issue and the skills needed. Often, the students quickly conclude that musically, they must identify this error and use technical skills to apply Autotune or pitch correction. However, how to socially navigate the situation often eludes the average student. Students flounder when asked if they should tell the singer he/she is out of tune, fix it without telling the artist, or redo the performance knowing it cannot be fixed. The students soon conclude that their musical and technical skills are useless without being able to navigate the social component of this common recording studio situation.

This exact situation occurred one day in a classroom studio working with clients. The student was poorly communicating his idea to the client, and I had to step in to work with the client to get the best performance. Afterward, an eager student asked, "So when do we learn that?" This became the base question for my doctoral dissertation, which focused on when and what skills students learned through formal AET training.

The doctoral research sampled over 3,000 audio engineers throughout the United States and Canada and identified that New Hires in the audio industry reported learning their technical abilities during formal AET training, while they learned communication and listening skills on their own [1]. However, the optional clarification responses and complaints of the Employers were the most alarming. Employers stated that their New Hires lacked the most important communication and listening

skills, among others, for their businesses. The Employers were angry, frustrated, and confused about the causes and solutions. There were a few positive comments; however, mostly the Employers used these optional clarification sections to vent and make clear their frustration. While these comments are predominately negative, valid qualitative information can be gleaned from these comments. They should be viewed as industry feedback.

1 LITERATURE REVIEW

1.1 *Historically a Problem*

The Employers of this study are not the first to insist that communication skills are paramount for recording engineers. Engineers have argued that what makes great recording engineers is their personal skills and presence, which ultimately determines their effectiveness [4]. This sentiment was echoed by Lambert [6] who found that people skills are of greater importance than technical skills, and they set apart the seasoned engineer, producer, or musician from an individual new to the business. Seminal research confirmed that AET graduates who possess good interpersonal communication skills are extremely desirable when working in an industry with big egos and political hierarchy [10]. Veteran recording engineer and educator Mark Rubel [9] concurred, "Communication is key in a collaborative process. The better you are at listening and expressing yourself...the more coherent the directions will be and the better the results and the happier your clients" (p. 4).

1.2 AET Programs and Communication Skills

As early as the 1980s, there was a call for AET programs to teach professional attitudes and increase awareness of what goes on day-to-day in the world of audio [3]. Some argued that AET programs had failed to teach social skills and ways to deal with clients [5,6]. Furthermore, many recording programs were not addressing these skills and consequently, were failing to fully prepare their students to meet the needs and desires of the industry [6].

These assertions and complaints spawned research into AET education and curriculum in the early 1990s. That research found Employers complaining that many graduates had “unrealistic people skills, weak customer service skills and lacked communication skills” [8]. Similar research indicated that the ability to work well under stress, be an astute observer, be easy to work with, and have a sense of humor was paramount for aspiring engineers [10]. Yet another study found that educators and Employers agreed that customer relations and studio protocol were most important [12]. In contemporary research, a panel of recording engineering experts was asked to identify skills that students graduating from a 4-year AET program in 2019 should have [11]. The results mirrored the past research. The top ranked skills were the ability to be an effective listener towards co-workers and clients, communicate clearly and tactfully with clients and co-workers, the ability to complete projects, and responsibility.

2 METHODOLOGY

My initial doctoral research focused mainly on the skills New Hires had and where they were learned. The research, conducted during October 2012- January 2013, sampled over 3,000 audio engineers located throughout the United States and Canada. These audio engineers included producers, recording engineers, live sound, and technical AV installation. The Employers reported that almost 84% of the New Hires they observed had formal AET training.

Type of Training	F	%
None	24	13.48
Tonmeister	4	2.25
4-year Music College	36	20.22
3-4 year Professional School	28	15.73
2-year Associate	22	12.36
Certification Program	36	20.22
Missing	28	15.73

Table 1: Formal AET training the New Hires observed received.

The two most popular programs attended were 4-year music colleges and certification programs at 20.2%

each; followed closely by 3-4 year professional school 15.7%; and 12.3% 2-year associates. Over 209 Employers responded to the survey, and there was a rich mix of quantitative and qualitative data from both the modified Likert skill questions and the optional clarification/open-ended questions. The Employers were asked to indicate their New Hire’s level of proficiency of the top 40 Tough [11] predefined skills. Also, the survey included an optional clarification section for each skill. The focus of this paper is on the missing skills and abilities the Employers reported in these optional clarification section.

3 RESULTS

The optional clarification sections contained complaints and critical comments by Employers. Often these comments had nothing to do with the specific skill, but rather were general comments about their New Hire’s issues and shortcomings. Themes for the comments arose from the code of the optional clarification sections and included (a) lacking communication skills, (b) poor attitudes and misguided expectations, (c) lacking responsibility, (d) the importance of the internship, and (e) the ineffectiveness of AET programs. The Appendix A section displays the original Employer comments, how they were coded and themed, and the identification number for all 57 comments.

3.1 Lacking Communication Skills

The open clarification section further confirmed that New Hires lacked communication and listening skills similar to the open ended and Likert scale questions of the original survey instrument. The Employers commented that the rarefied air of the studio is often a fragile chemistry in a business in which listening is critical (Occ2). Complaints were made that New Hires were unaware of the people skills needed by engineers, and lacked the focus to pay attention to the client on the other side of the glass (Occ1). “Most self-centered kids (no child left behind) are used to talking constantly - even when they have no idea of what the issue is... it takes a reasonably long time to train kids to only worry about the customer, and what they want and need (Occ21).”

The difference in modes of communicating was also a source of irritation for Employers. Specifically, the Employers condemned the use of texting as a means to communicate with clients. “New hires today want to communicate with clients via email or texting. Clients want a more personal approach like the phone or in person (Occ6).” Another Employer blamed texting or lack of “face time” to be responsible for the New Hire’s inability to work effectively in a creative collaborative environment as adults (Occ5).

Some Employers agreed that their New Hires were cordial and likable, but lacked assertiveness. One employer reported that his New Hire buckled when dealing with assertive or even aggressive clients from fast-paced places like Los Angeles, or TV producers and ad agencies. The New Hire could not handle them in a professional manner and chose to withdraw from the situation (Occ12).

3.2 *Poor Attitudes and Misguided Expectations*

A multitude of Employers echoed the importance of a client-first mentality. The Employers dwelled on the fact that this is neither the attitude nor the expectations of their New Hires. They referred to the New Hires as self-centered, no-child-left-behind kids who, "...come into the studio thinking that they are the center of the universe. The customer is the entire universe (Occ16)." One employer lamented that after missing two appointments with clients, the New Hire never came back to the studio. The Employer opined that the New Hire was unwilling to face the reality of the situation and tackle the areas he needed to work on (Occ29).

Employers concluded that these poor attitudes and misguided expectations are the products of the New Hires' inability to take criticism (Occ25;Occ26;Occ29). The New Hires only want to learn about what they are interested in and are not interested in feedback (Occ30). "They have been raised with the idea that everything they do is perfect. There can be no criticism of what they do since they are, by their own standards, perfect (Occ25)."

Employers also pointed to a lack of dedication as the cause of poor attitudes and misguided expectations. One Employer explained that most New Hires do not have the ability to totally dedicate themselves to a 'non-self' problem. While another complained that, "Most are not willing to go the extra mile, and feel abused when asked to do so (Occ28)."

3.3 *Lack of Responsibility*

In general, the Employers did not express confidence in their New Hires. This prevents Employers from allowing the New Hires to work independently on projects or be in a position of responsibility (Occ32). This lack of confidence stems from New Hires' inability to manage appointment schedules and obligations, poor session documentation, and a lack of attention to detail (Occ33;Occ34;Occ36). An intern must demonstrate dependability and responsibility before being considered for employment as an engineer. If they fail to do so, the Employer stressed that they would, "...not stay on as an intern (Occ35)."

3.4 *Importance of the Internship*

Employers praised internships as the process by which aspiring engineers start to learn responsibility (Occ38).

This included responsibility for completing tasks, informing the manager when equipment is broken, or when something goes wrong. Personal conduct, microphone placement for large sessions, and the application of skills are fostered during the internship (Occ37;Occ38). The application of skills is key because, "most have not had enough supervised application prior to their internship. Thus, there is a lot of reinventing the wheel instead of applying the skills (Occ49)." Most interns realize after a few days in the professional studio environment that their education was a good start, not an end (Occ39).

3.5 *Ineffective AET Programs*

In general, the Employers were critical of formal AET training programs. They argued that formally trained students might have technical skills, but know very little about how to focus, listen, and interact with people. The Employers agreed that often class projects do not seem to translate to real-world recording projects (Occ45). They complained that most have had no real world experience and still require much training on the job in the areas of problem solving and client interaction. One Employer explained that, "This would be the third recent graduate I've hired in five years who seems to believe that his education 'qualifies' him to provide input to artists and producers. He is learning, but slowly, that no one cares what a kid has to say (Occ19)." Some Employers claimed that AET programs do not force students to work at the speed and intensity required in the 'real world' and are too lenient regarding reliability and deadlines. The classroom therefore looks very different from the studio and is an unfamiliar environment for most AET graduates. They believe AET programs' shortcomings hinder the New Hire's assimilation and application of skills while working independently in the studio. However, one Employer recognized that it would be very difficult to teach one of the most valuable attributes a recording engineer can have: experience.

4 DISCUSSION

4.1 *Limitations*

Though there were some positive comments made by Employers, the majority were extremely negative. However, these comments are from a relatively small sample size. Their responses should be tempered and the generalization limited because the participants only represent 6% of the entire population. Also, because the survey elicited such negative responses, it is probable that the survey drew the attention of those Employers who had problems with their New Hires currently or in the past. Regardless, their comments are congruent with the complaints of other Employers and

engineers from previous research [2,8,10,11,12] and therefore indicate a continuing problem.

4.2 Missing Skills

The responses were critical of not only the New Hires, but also showed a clear lack of confidence in their training. More than 80% of these New Hires had formal AET training. Four-year music colleges and certification programs were the two most popular programs attended. These AET programs should be concerned with the Employers' frustration and lack of confidence in the New Hires' training. These programs exist to provide aspiring engineers the skills and abilities they will need to gain employment. The Employers' comments indicate an inconsistency among what is being taught, what students are learning, and what the Employers actually want.

When speaking of communication skills, the Employers presented a contradiction. Some said that their New Hires talked too much and did not know their place in the studio hierarchy. While others said the New Hires were not assertive enough, or did not know how to deal with aggressive clients. It is important to point out that curricular changes alone may not be enough to improve these communication skills during formal AET training. The Employers reported that the studio did not resemble the classroom and therefore, internships or on the job training are the only way to develop and master these skills. A situated learning environment, however, could help mollify the Employer reported deficiency in the ability to take criticism.

Regardless of the environment, dedication and passion are not the by-product of a situated learning environment [7]. Students should have dedication and passion before they take their first course--let alone before they enter the studio. Perhaps these skills cannot be taught; however, they could be nurtured or developed via an AET program. Either way, the Employers ranked these as equally important as communication and knowledge of gear, and therefore, AET programs should consider them.

There is a silver lining to all these negative comments: the Employers identified that there is a sharing of skill acquisition between the AET programs and the studios. The Employers expressed that some skills are not the sole responsibility of AET programs to teach. Some Employers stated that some of the most important skills are, and can only be, learned on the job. Furthermore, Employers want technical skills balanced with communication skills. Therefore, a discussion between educators and Employers should focus on these skills and the level of proficiency Employers need their New Hires to have.

5 RECOMMENDATIONS

AET educators and industry practitioners should begin a conversation. This dialogue would promote research aimed at understanding industry needs, the best ways of empowering aspiring engineers with skills, and how to continually change and adapt to meet the needs of the rapidly advancing and changing audio industry. The conversation could be as simple as agreeing on what skills should be taught during AET programs and which ones can be learned later on during an internship or on the job. Educators and practitioners need to work together to identify the skills needed to 'get hired' and those that can sustain a career in the audio industry.

The purposefulness of this conversation is dependent on further research into this AET/audio industry relationship. A next step should include asking universities and formal AET educators to agree upon the most important skills. The skills needed by college educated recording engineers (CERE), which Sanders [10] did. This could also include specific skills the educators focus on in their classroom and those of the larger focus of the formal AET institution. This could lead to a better understanding of what formal AET programs are teaching, and if this is consistent with what Employers of this research and Tough's [11] expert panel reported as essential.

6 CONCLUSIONS

So what do you do when the artist is singing out of tune? The Employers surveyed in this paper agreed that most of their New Hires lack the social skills to answer this question. However, maybe it is the type of question that one answers via trial and error over the course of a career. It might be said that successful recording engineers are continually refining and developing social skills with each session they run. Ultimately, the Employers of this study didn't answer this question; however, asking questions like these are important. Educators and practitioners need to continue asking these questions, so that formal AET training can purposefully serve this and the next generation of aspiring recording engineers.

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Appendix A

Table 2

Employers Critical Optional Clarification Comments

ID	Code	Optional Clarification Comment
Occ1	Comm. Skills	"They have a clue in terms of the people skills needed to: 1) focus and pay attention to the person on the other side of the glass as opposed to watching the needle on the LA3a all the time 2) get a solid performance out of someone who is intimidated by the studio – In other words, too many formally trained students might know a ton about equipment, but very little about how to focus, listen and interact with people. That's where 'on the job' becomes make it or break for a lot of New Hires; they either get it (people skills) quickly and begin to develop or they're gone."
Occ2	Comm. Skills	"The rarefied air of the studio is often a fragile chemistry."
Occ3	Comm. Skills	"Most of my New Hires need help on honing relational skills with clients."
Occ4	Comm. Skills	"Again, communication skills usually require refining."
Occ5	Comm. Skills	"I guess I'm an 'old fart' but I was trained to actually talk to people. Kids text. They don't have nearly enough 'face time' with others during their childhood to work effectively in a creative collaborative environment as adults."
Occ6	Comm. Skills	"New Hires today want to communicate with clients via email or texting. Clients want a more personal approach like the phone or in person."
Occ7	Comm. Skills	"This varies, but I've had people with no conflict resolution skills."
Occ8	Comm. Skills	"None of the new kids know how to deal with clients or talk properly with them... this is stressed while interning."
Occ9	Comm. Skills	"Was not assertive enough and was not a good communicator with clients. He was cordial and likeable, but this lack of communication ended up with missing jobs and appointments."
Occ10	Comm. Skills	"Most New Hires in the studio world are still really inefficient when it comes to professionalism and client interaction."

ID	Code	Optional Clarification Comment
Occ11	Comm. Skills	"In a business where listening is critical, most New Hires severely lack this skill which then burdens the work in a team situation."
Occ12	Comm. Skills	"Good personality but if he encounters people that are a little more assertive or even aggressive clients from fast paced places like Los Angeles, TV producers and ad agencies, he buckles and can't handle them in a professional manner, choosing to withdraw from the situation."
Occ13	Comm. Skills	"Again, I can check the first four -- most cats have a home studio of one sort or another. The sad part is they know more about equipment than they do people -- another big part of my job is teaching someone how to listen to someone or something before they start plugging and patching and creating that signal path."
Occ14	Comm. Skills	"On a professional basis: critical listening (most lacking), basic audio concept understanding, basic tasks."
Occ15	Attitude	"Most kids think the world revolves around themselves. It takes a reasonably long time to train them to shut up and listen to the client."
Occ16	Attitude	"Kids come into the studio thinking that THEY are the center of the universe. The customer is the ENTIRE universe. 'No child left behind' makes kids self-centered and poor listeners."
Occ17	Attitude	"I told him at the outset that this job is all about getting the clients what they want."
Occ18	Attitude	"Again, the kids ALL need to be trained that 'it is all about the customer' and not at all about you."
Occ19	Attitude	"This would be the 3 rd recent graduate I've hired in 5 years who seems to believe that his education 'qualifies' him to provide input to artists and producers. He is learning, but slowly, that no one cares what a 'kid' has to say."
Occ20	Attitude/ Responsibility	"He is always very eager to work in the studio. If that's a problem we won't hire. If they screw up or lie early on -- fuggedabout it."
Occ21	Attitude	"Most self-centered kids (no child left behind) are used to talking constantly - even when they have no idea of what the issue is... it takes a reasonably long time to train kids to only worry about the customer, and what they want / need."
Occ22	Attitude/ Responsibility	"The New Hires today see a job as a way to make money but don't want to invest themselves in the company. If a social event comes up and it conflicts with a job-related activity, they are more likely to say no to the job-related activity and do the social activity. Not the way I was mentored."
Occ23	Attitude	"Showed a big passion for the field, and his technical proficiency was superior to many students I have had, but his lack of assertiveness and unwillingness to do tasks he did not like slowed down his progress."
Occ24	Attitude	"They all come in loving the perception of the... (glamorous) aspect of the recording studio -- it's interesting to follow up and see where they are at in 5 years of heavy sessions."
Occ25	Attitude	"They have been raised with the idea that everything they do is perfect. Therefore, there can be no criticism of what they do since they are, by their own standards, perfect."
Occ26	Attitude	"He knows how to take criticism, but then doesn't apply it. Hopefully that will get better as he is on the job longer and gets used to being reviewed."
Occ27	Attitude	"I spend most of my time explaining that nothing is concrete in the recording process, that it is all based on change to reach the goal."
Occ28	Attitude	"Most are not willing to go the extra mile and feel abused when asked to do so."
Occ29	Attitude/ Responsibility	"I do not know if he has learned anything from his experience because he missed two appointments with clients in the studio and didn't come back. He was unwilling to face the reality of the situation and be able to take productive criticism. Too insecure to face the music so to speak and tackle the areas he needed to work on so instead he quit."
Occ30	Attitude	"They only want to learn about what they want to learn about and are really not interested in learning things that are important but they are not personally interested in."
Occ31	Attitude	"One has to have the drive to go out and find bands, not just sit and wait for someone to tell them they need help recording."
Occ32	Responsibility	"Most come with some tech knowledge but not enough to put into a project in a responsible position."
Occ33	Responsibility	"Most students cannot manage their appointment schedule or obligations."
Occ34	Responsibility	"Still cannot be trusted to properly document session information."
Occ35	Responsibility	"Someone has to be very dependable for them to stay on as an intern. But because he never left me 'high and dry' or needing extra help was why he was hired. He was always there when we needed him to work and he never called in or complained."
Occ36	Responsibility	"Very Good at producing the product, but lack of attention to details in minor things like making sure final output is correct or burning is properly done, brought him down to a more basic level."
Occ37	Internship	"Conduct during a recording session is unique and few New Hires would know about it prior to internship."

ID	Code	Optional Clarification Comment
Occ38	Internship	“During the internship he started to learn what it means to take responsibility for completing tasks, for telling the manager when equipment is broken or when something isn’t going right. He still has trouble taking responsibility at the end of sessions and cleaning up after himself and making sure the bands don’t break our gear.”
Occ39	Training	“Most seem to realize a few days after starting in the professional world that their education was a good start, not an end.”
Occ40	Training	“The education system is too lenient regarding reliability and deadlines. This is a make-or-break skill/attribute. Either produce on time or work for McDonalds.”
Occ41	Training	“I wish schools taught basic electronics, signal flow and, logically tracing problems.”
Occ42	Training	“I’ve never seen a ‘school’ engineer know how to use any audio gear in the real world. The delay from the time the student has the course on the gear to the time they use it determines retention. If the student does not apply the knowledge, it is lost.”
Occ43	Training	“Knowing the science v. the application and process is severely lacking in most New Hires.”
Occ44	Training	“Signal Flow: This is one of the most important ‘under-pressure’ skills we have and most students are utterly without in this regard.”
Occ45	Training	“Class projects do not seem to translate to real world recording projects.”
Occ46	Training	“Students often have textbook definitions of the recording life cycle phases, but they rarely understand them or what tasks are completed within.”
Occ47	Training	“For most people going to school for audio engineering, this environment is unfamiliar to them since our focus has changed from recording artist, to sound for film and television. They just are not taught that in school.”
Occ48	Training	“Most EDU grads know all the pieces and parts, but have a very hard time assimilating and applying them on their own in a proper studio. There is a huge disconnect between the DAW and the external gear.”
Occ49	Training	“Application is key. Most have not had enough supervised application prior to their job. Thus, there is a lot of reinventing the wheel instead of applying the skills.”
Occ50	Training	“A new hire doesn’t fully understand mic placement until they have to place mics for a large studio session.”
Occ51	Training	“Could be better. Wish he knew more (business ethics) and wish he was taught it in school.”
Occ52	Training	“Signal flow is essential for a hire and though it is taught at school, and again during the internship, but most New Hires seem to not remember it.
Occ53	Training	“Most New Hires I deal with range from certs to BA degrees. Most have had no real world experience and still require much training on the job. Especially in the area of problem solving and client interaction.”
Occ54	Training	“Schools do not force students to work at the speed and intensity required in the ‘real world’.”
Occ55	N/A	“Experience -- tough to teach this in the classroom, unless the training facility becomes more real world and starts: 1) hiring outside commercial studios (a facility different from the ‘classroom’ studio) for the student to actually work in 2) having their students book a real band (four piece, duo, trio, solo -- students choice) to record for free for four hours in that commercial studio.....note: there would be an engineer present from said comm studio to help with patching and some other things -- but the student would be expected to come away with something in those four hours. This could also be a team of three students and not just one.”
Occ56	N/A	“Everyone has their own personality or style. I don’t think he has become more professional since taking the internship or the job. He dresses the way he does and he talks the way he talks. We don’t dog him for any of that because the studio is a laid back place.”
Occ57	N/A	“Oh to be young and stupid again ... haha.”