



## **The CASE for High School Tech Theatre Students Using Lifts An Editorial by Beth Rand**

### **I. FINDINGS OF FACT**

I was hired to design and install a lighting rep plot for a high school theatre where the students had been allowed to use the scissor lift for the purposes of hanging and focusing lights and reaching the tops of tall set pieces. They couldn't use the lift until they had been trained by the tech theatre teacher, who himself was current on the district-provided training for lifts. All of the students knew who was trained and who wasn't, and non-trained students would not attempt to use the lift, deferring to the trained students. The students had high levels of integrity around lift safety.

Until one day. When we were in the middle of the installation of the rep plot, the administration abruptly decided to crack down, and announced that no students would be allowed to use the lift for any reason from that time forward. Why? Because a student in the school – somewhere – had climbed into an unattended lift. So for the days left of hanging, focusing, re-lamping, and gelling, one of the Drama teachers went up in the lift and did all the work, while the five lighting crew students stood around and watched, or at best were kept occupied performing "safe" tasks like gel cutting, or were assigned minor tasks assisting the students on the set crew.

Unfortunately, banning students from using a lift is not an uncommon occurrence in high school theatres. Why? Because, yes, a lift can be hazardous. But it is not the only hazardous piece of equipment in educational settings, and for the most part administrators realize that there are certain skills that students need to learn and practice in a CTE subject, even if they are potentially dangerous. Even the National Safety Council defines safety as "the control of recognized hazards to attain an acceptable level of risk". There's a reason it's called Risk "Management" and not Risk "Elimination". Because there is no way you can possibly prevent all accidents in a high school - although this is the goal at all times! For this reason administrators do allow hazardous activities to go on in many CTE subjects (think wood shop, auto shop, welding, biotechnology, how about the weight room), but students using lifts in school theatres seems to be an issue administrators nationwide would prefer to avoid.

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## II. BASIS FOR THE AVERSION

Why the aversion? Let's look at why so many administrators jump to the conclusion that students should not use lifts, and let's build a case in support of students using lifts in educational theatres.

### 2.1 Personal Knowledge

First, it is merely because of a personal lack of knowledge of how a theatre has to operate. In their personal lives administrators go to many "facilities"; restaurants, hotels, shopping malls, doctor's offices, perhaps even hospitals. They've cooked in their own kitchen, they run their own office, and they need to buy clothes. In their younger years they may even have had a job in one of these facilities. For the most part, they know how these types of facilities function, as enough of the "behind the scenes" operations are apparent and common knowledge. However, when they go to see a play, ballet, concert, opera or other performance in a theatre facility, what has been going on, and what is going on, behind the scenes is not apparent at all. All they see is the magic of the performance from their side of the curtain. If they don't have a practical working knowledge of theatres, they've never worked behind the scenes, or haven't been backstage since they were in high school themselves perhaps, it's nearly impossible for them to anticipate what may be needed in terms of educational functionality in a theatre facility.

### 2.2 Professional Protection

The second is because of a professional aversion to liability. And rightly so. In Dr. Randall W.A. Davidson's (known in the industry as "Dr. Doom") book *"Practical Health and Safety Guidelines for School Theater Operations : Assessing the Risks in Middle, Junior, and Senior High School Theater Buildings and Programs"* one of the first things he discusses is that by law the administration is ultimately the responsible party for student safety in schools. It's understandable that because of this level of liability administrators are very conscious of risk management. Schools therefore have a lot of safety training for the staff who are directly in charge of the students - because the administrators can't be everywhere at once. School staff these days have to go through 'compliance' training, bodily fluid training (If it's wet and it's not yours, don't touch it!), some school employees are required to have CPR/AED and First Aid training, some are required to have fall protection training (maintenance and custodians). There is a plethora of trainings that district staff and teachers have to go through annually.

This includes lift training. Custodians in particular need to use lifts, but also some teaching staff might need to use a lift. And if the high school has a theatre staff of technicians, then they have to be trained on lift safety and operations too. But administrators, not understanding the reasons for a student to need use a lift (again, because of lack of familiarity of the functionality of the facility) find it easier just to ban all students from being trained and using lifts all together.

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But if high school administrators decided to ban all students in a school from being trained on the use of hazardous objects, then woodshop students wouldn't be allowed to use the band saw, chemistry students wouldn't be allowed to use the Bunsen burner, welding students wouldn't be allowed to use the oxy acetylene torch, and the culinary class wouldn't be allowed to boil water. George Ledo, a Professional Set Designer and Education Advocate, adds a few sport parallels to this list. He says it is "...like saying the football coach has to receive all passes because it's not safe for the students. Or like saying a pole vaulter needs to wear a safety harness. Or a competitive swimmer has to wear a life vest and a mask."

### 2.3 Ladders vs. Lifts

And, for some reason, while administrators may prohibit students from using a lift, many of them are happy to allow students up ladders. This is too often without any student safety training required of the Drama teacher (most have the sense to create safety trainings themselves, but the administration rarely explicitly require and provide a fall protection program for students in a school theatre using a ladder).

So why is there this misconception that students are safer using a ladder than a lift? This simply isn't the case. As Erich Friend, a Theatre Consultant Specializing in Performing Arts Technology and Safety points out "...a lift is still a better (safer) choice for a student. [The student is] much less likely to fall off of it because it has a cage around the work platform." Case in point: I designed the lighting for a show at a high school theatre that had a front of house lighting position consisting of pipes above the audience seats. The only way students were permitted to access the pipes was by a very tall and cumbersome ladder, dubbed by the students as "Big Bertha". Students had to carry 20lb lighting instruments up the ladder and then, when at the top, take their hands off the ladder and balance unprotected with no cage, in order to use both hands to hang and focus the instruments. Because...they were not permitted to use a lift to reach this lighting position, nor the electrics above the stage, which also had to be accessed by a tall ladder.

### 2.4 Hazards of Education

It stands to reason that administrators see lifts as something dangerous –they are - but does that mean they're too dangerous for tech theatre students to use them, considering all the other hazardous activities students are permitted to participate in in schools in the process of education? As Ledo comments, "...schools have a responsibility to keep kids safe (and of course they're afraid of lawyers and insurance companies), but they also have a responsibility to teach the kids what they're supposed to be learning...why are we here? Why are doing this?"

## III. LIFTS ARE A PART OF THE EDUCATION

Let's bring to the stand why students need to use a lift in the theatre – just as they need to use the Bunsen burner in the chemistry classroom, the skill saw in the woodshop, and the weights in the weight room.

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### 3.1 CTE

What a lot of people don't discern when they think about the "Performing Arts" is that tech theatre is not a "performing" art.

Tech theatre is STEM. Tech theatre is vocational. Tech theatre is a CTE (Career and Technical Education) subject. In fact most states actually have some sort of written CTE program with some sort of standards that cover technical theatre. For example, the state of Washington actually does include the use of lifts in their Framework:

State of WA CTE Program standards (500502 - Theater Design Technology (CTE Model Framework; 09: Rigging Systems)

09.13 Ground supported structures – genie lifts & self-climbing towers

This isn't to say that every high school theatre in the state of Washington allows for students to use lifts – they still don't - but this is just one example that nationally many administrators don't actually realize that using a lift is an integral – and sanctioned - part of tech theatre education. They are essentially banning the implementation of their own educational standards.

### 3.2 Educational Process

But why should administrators have this realization and knowledge? When they watch a performance the lights go on and off according to the location, time of day, or mood of what is happening on stage, the actors enter the stage wearing appropriate costumes, and tall sets have paint on them all the way to the top. They don't witness the process the tech theatre students have gone through in order to make this all happen. One of the primary reasons a student needs to be able to use a lift is to hang lights (also important for reaching the tops of tall scenery, hanging scenery, and utilizing stage equipment). Dozens, sometimes hundreds, of lighting instruments have to be hung, circuited and focused in specific configurations on the electrics in order for the lighting design to be created. This process is as much a part of the education of tech theatre as using a power saw is a part of the process of a woodshop student creating a functioning pinball machine. The woodshop teacher does not make the pinball machine while the student watches because the student is not allowed to use the power saw. So why, as in the opening example, should tech theatre students stand by while teachers or other school staff hang and focus the lighting instruments?

As Ledo explains, *"Hanging and focusing lights is part and parcel of working on a lighting crew...It's a big part of what lighting crew members are expected to do in the real world. It makes no sense to teach a tech class that includes lighting (presumably to get students ready for their next step, whether it be college or other theater work) and not allow them to learn and practice this skill. And it IS a skill."*

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## IV. TECH THEATRE IS A VOCATION

And what is the purpose of teaching students these skills? Because tech theatre is a vocation. And it's a vocation that is the backbone of our society. According to The CheatSheet's website, Americans spend more money per year on entertainment than they do on sports. Students involved in tech theatre in our schools are our future grips for our movies, producers of our favorite TV shows, editors for our scientific documentaries, sound technicians at our radio stations, not to mention our Olympics organizers, and our football half time show designers and technicians. As Ledo further explains, "*Learning this stuff is not limited to "the school play." There are lots of opportunities for students to get jobs in the industry, including professional theatre, opera, ballet, touring shows, television, the movies, theme parks, sporting events, trade shows, and so on and on, all of which are legitimate, money-paying jobs. Employers in these areas expect candidates for lighting jobs to be able to climb things to do their work, and to do it safely.*"

Monona Rossol, an Industrial Hygienist and IATSE Safety Officer, who runs a not-for-profit corporation (ACTS - Arts, Crafts & Theater Safety, Inc.) dedicated to providing health and safety services to the arts, points out, "*if it is presumed that these young people may go out and get a job in real theater or one of the entertainment industries, the school has an obligation to equip them to do this safely.*" Not, as is too often the case, to ban them from doing this at all.

Of course, not every student in tech theatre will go on to work in the entertainment industry, just as not every student in a math class will go on to use mathematics as an integral part of their job, but they do take away with them a myriad of transferrable skills such as problem solving, responsibility to self and others, analytical thinking, teamwork, diversity, and creative thinking, as well as safety, to name but a few. But without the opportunity to use the 'tools of the trade', and just stand by and watch while a teacher performs the tasks, no student is fully served.

## V. SAFETY LAWS, STANDARDS AND REGULATIONS

### 5.1 Department of Labor and Industries

So, why would administrators ban students from their education? One reason administrators have cited why students should not be on lifts is because the Department of Labor and Industries has laws about what minors can and cannot do. (Please note, I'm paraphrasing here. Always consult your own state's L&I Department.) The Department of Labor and Industries, as well as many state Administrative Codes, prohibit minors from:

- Working at heights greater than 10 feet off the ground (*in the theatre - catwalks*).
- Operating, or being in proximity to, elevators and hoists (*in the theatre - fly systems*).
- Riding on a lift or using ladders or scaffolds (*in the theatre - focusing the electrics*).
- Operating power-driven machines (*in the theatre – the scene shop*).

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- Loading or unloading trucks (*in the theatre - set load-in, load-out*).
- Working in the capacity of an electrician (*in the theatre - re-wiring a lighting instrument*).
- Wrecking or demolition (*in the theatre - strike*).
- And other activities intrinsic to high school technical theatre.

Note the inclusion of lifts in this list.

The Department of Labor and Industries also prohibits minors from engaging in all sorts of other activities. These include:

- Operating meat slicers and food processors.
- Using power-driven woodworking machines, power-driven circular saws, band saws.
- Using power-driven metal-forming, punching and shearing machines.
- Certain tasks related to electrical work.
- Work that may involve exposure to hazardous chemicals or substances.
- Loading or unloading trucks.

Yet, we see students doing these sorts of things from this second list at schools all the time - in woodshop, welding, culinary classes, chemistry lab, and so on. So how can this be?

Here's the exemption...

It's because a minor may participate in these activities if the minor is:

- Enrolled in a vocational training program under a local educational authority.
- Participating in a bona fide vocational education program.
- Participating in a work experience program certified by the office of the superintendent of public instruction.
- Participating in a career experience program.
- Working with a trainee certificate.
- And/or meets other requirements regarding the conditions of supervision and learning.

So, administrators do permit students to perform these hazardous tasks in a vocational setting. But what administrators fail to recognize is that tech theatre is also a vocational education and training program, and that the Department of L&I does actually have conditions where it does actually allow students to participate in tech theatre activities – including using a lift.

## 5.2 OSHA

Another governing body that administrators revere is OSHA, which stands for the Occupational Safety and Health Administration. As Rossol explains, “*School administrators have the duty under the law to insure that their teachers have had the required training in the OSHA regulations.*”

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But the “O” in OSHA stands for Occupational, or in other words, employees. Students are not covered by OSHA because they aren’t employees. But OSHA is one of the reasons administrators ban students from using lifts, rather than training students to safely use lifts. As Rossol points out, in fact students actually “...*have much greater protection under strict liability. That’s why I suggest schools follow the OSHA rules to the letter and do even better if possible.*” Which is to say, allow students to use the lift, but require them to have even greater regulations than the staff (such as requiring direct supervision) – they are minors after all.

### 5.3 ESTA

There are other emerging standards in the entertainment industry, in particular from ESTA (Entertainment Services and Technology Association), which has created the Technical Standards Program and the Entertainment Technician Certification Program. Even though these standards don’t apply specifically to the grade school educational theatre setting Rossol advocates that “*since these standards are even free from the ESTA website, there is utterly no excuse for not having them handy. There are a lot of them on lifts, theater electrics, fall protection, atmospheric effects use, and on and on. These standards all are compatible with, or exceed, the OSHA regulations.*”

### 5.4 USITT

Another organization involved in creating standards around educational (albeit primarily university) theatre safety is USITT (United States Institute of Theatre Technology). USITT has recently created an educational program called eSET, which stands for Essential Skills for Entertainment Technicians. While USITT has primarily been geared towards colleges and universities, they also reach out to high schools as well.

### 5.5 NO CONSOLIDATED STANDARDS

When I am working in a school theatre, I always act as if all safety standards apply to everyone, and I train my students accordingly, but sadly I have yet to discover a set of safety standards, that is universally enforced, that specifically applies to educational theatre. There are occupational standards for employees, there are entertainment industries standards for professional theatre technicians, and there are building standards for educational buildings. But nowhere does there exist explicit safety regulations specifically for high school students who are engaged in activities in an educational theatre facility. It seems that teachers are always patching together a safety program – and these are based only on the level of knowledge of the individual teacher. There is no one place for them to go to print out a list of universal safety standards for their school theatre. It’s no wonder that administrators, rather than trying to make sense of these overlapping, and sometimes conflicting, standards, take the easiest route out and decree that students may not use a lift at all.

## VI. POLICIES, PROCEDURES AND RULES

But, because these and other safety regulations do exist (even if they have not yet been consolidated to specifically apply to educational theatre facilities) by now I hope

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you are in agreement that it's not only acceptable, but appropriate that tech theatre students should be allowed to use a lift in the theatre. There's no point in a school or district spending a lot of money providing their students with a theatre facility and then not allow their students access to the 'tools of the trade' – the CTE education - within it.

But, even though the existing standards (albeit disjointed) do allow tech theatre students to use a lift, there needs to be written safety policies and procedures about the safe and appropriate use of equipment. Just as there is in any CTE classroom, Rossol advocates for the following documentation to be in place for the school's theatre:

*"...the school has a written OSHA fall protection program...:*

*"...documentation of the time, place and attendance of the students taking the training..."*

*"...the training records include the qualification for the "competent person" doing the training..."*

*"...there is some kind of "proof of comprehension" in the records such as their passing a test on this material..."*

*"...there is a written "enforcement policy" in the fall protection program which details the penalties for anyone breaking the rules..."*

*"...look at your emergency response plan for theater and imagine a serious fall and what should happen and who does what."*

## VII. SAFETY TRAINING

But our case doesn't end with the verdict of requiring documentation. As all three experts above will agree, no student should ever be allowed to use the lift unless they are trained. And, although it seems it would go without saying, the experts also agree that the students may only be trained by a person who has been officially trained themselves.

Sometimes staff (teachers, the theatre manager, technicians) that train the students are formally trained themselves, sometimes not. It's been my experience in schools where students are allowed to use the lift that there is always some sort of required training program for the staff of the school, but the training of the students is usually done by the theatre department staff, who may or may not have taken this training themselves. For that reason, as Rossol advocates, *"...time must be allocated for safety training of faculty who then must pass this training on to students."*, and Friend concurs, *"Having MANDATORY train the trainer courses for the Theatre Staff as a prerequisite for anyone using a personnel lift is a basic rule."* One way to ensure that the students were properly trained would be to provide industry trainers for them. If lift training is required for and available to staff, why can't students also receive this training? In fact that can be done, as Rossol points out that, *"In some schools, we train faculty and students together..."*

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## VIII. SUPERVISION

Not only should there be training, and documentation of that training, but there must also be supervision. As Rossol adds, *“no student can use the [lift] when the supervising competent person is not present.”* This goes for any activity in the school theatre – in fact students should not even be allowed in any area of the theatre unless they are directly supervised in that area by a “competent” person (that is, a person who has been trained themselves). Listening out for students engaging in tech activities (climbing ladders on stage, working in the scene shop) while rehearsing your students in the lobby is not a definition of “direct supervision”. Although, a Drama teacher recently told me that that’s what her administrator advised her that she would have to do. Ironically, this same administrator would not allow trained and supervised students in a lift.

## IX. JUDGEMENT SUMMARY

As we have seen presented, using a lift in a theatre is an integral part of the education of the student who is learning the skills of tech theatre, just as using a power tool is an integral part of learning woodshop skills, using a Bunsen burner is an integral part of learning chemistry, using a hot stove surface is an integral part of learning culinary techniques, and using a long pole to launch yourself high into the air – and hopefully land on a pad on the ground - is an integral part of learning to pole vault.

The job of the administrator is not to prevent students from participating in potentially hazardous activities that are a part of the students’ vocational education, but rather to work towards the goal of making sure no one injures themselves because of a lack of policies, procedures and training for the safe and appropriate use of equipment. Too often it is the theatre staff who are making sure a safety program exists, without the support of the administration. I once created a whole theatre safety manual, and when I presented it to the district Operations Director for his authorization, he returned it with one comment – he didn’t like that some of the sentences were in ALL CAPS because it made it hard for him to read. That was the extent of the safety policies for the students that he wanted to be party to.

“Dr. Doom” would advise that administrators explore and familiarize themselves with the various standards and laws and how they apply to educational technical theatre, and how in particular they act as a basis for creating the policies and procedures for student safety in the theatre. Rossol, who is sometimes involved as an Expert Witness in court cases involving educational safety cases, advises that, *“...the strategy in accidents with students often is to show what a regular employee should have in the way of training and protection, and make the argument that the student was younger, less experienced, etc., and needs as much, or more, protection than the adult worker is entitled to under OSHA.”*

The case to be put forward here should not really be whether tech theatre students should use lifts or not, but evidencing beyond a reasonable doubt what trainings, policies and safeguards need to be in place in order for them to safely do so.

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