

The ABA School Bands Committee

The ABA School Bands Committee has been involved in an extensive project researching possible financial, ethical, and the evaluation of student achievement concerns relative to the quickly expanding use of electronics and amplification in school marching bands. The project received the joint support of the leadership of ABA, NBA, CBDNA, The John Philip Sousa Foundation, ASBDA, NAFME, and the Eastern Kentucky Marching Arts Committee. The intent was to document the opinions of a wide cross section of our profession relative to educationally appropriate use of these techniques. Developing musically literate students being the primary function of school band programs it is important to ascertain just how any development adds to or detracts from the ability of the teacher to meet the educational and financial goals of a strong music education program. More detailed survey results will be available in professional Journals and the web sites of various organizations. Below is a short set of conclusions gleaned from this project.

Roy C. Holder, Chair ABA School Bands Committee

Conclusion

From the perspective of a High School Band Director, the challenge of incorporating Amplification and Electronics into a Marching Band Curriculum is one of the more challenging developments for this medium in many years. Not since the adoption of Drum Corps styled “Colorguards” in the 1970’s has this activity seen such a significant addition to the demands of fielding a relevant ensemble for assessments and competitions.

It is essential that we again remember that this study is focused on High School Marching Bands, and not competitive Drum Corps. Even though current stylistic approaches can be similar (if not identical), the fundamental purposes of the two activities are dissimilar. The primary role of the Marching Band is an adjunct ensemble of a comprehensive instrumental instructional program focused on the musical literacy of its members. Artistic vision, competition, innovation, and marketing are not the primary roles of the High School Marching Band. These attributes can certainly be ancillary values but would not support the existence of a Public School Marching Band as a curricular offering in a public school Instructional Program.

A legitimate concern, then, is that an ungoverned use of these electronic devices and techniques not only places an increased human and financial burden on school programs, but also has the potential to subvert basic pedagogical achievement principles. When miking techniques and/or applied synthetic sounds can alter basic sound production characteristics in an assessment, then student achievement is not being perceived or measured accurately. In an educational environment where achievement accountability is stressed as justification for public funding and staffing of music programs, any attempts to artificially enhance students’ actual skills and achievement becomes a foundational problem.

We have seen objectively from this survey that even Spectators and Performers are critical of some of the newer adaptations of synthetic and sampled sounds in general. As applied in specific ways, we also see that the practice of electronically manipulating student performances

can become antithetical to fundamentals of educational assessment, and a manipulation of competitive standards. It would seem obvious that a greater awareness and dialogue among all the constituencies involved in the high school marching band activity has the potential to employ what is best with new technologies, while remaining focused on our primary mission of facilitating musical literacy and peak experiences with wind and percussion (band) instruments.

Marching Arts Amplification & Electronics (A&E) Survey: Fall, 2017

This survey is the first step in a study devoted to the implementation of electrically-driven sound reinforcement and synthetic sound-sources, specifically in the North American competitive high school band community. Please note that the project is not directed toward the competitive drum corps activity, primarily due to the tangential relationship of that community to the primarily scholastic objectives of school band programs.

The project is being supervised by Dr. Joseph Allison of the Eastern Kentucky University School of Music. **The intent of this initial phase**, “Community Survey” is to establish the level and depth of understanding of “band centric” individuals as applied to this highly-specific area of high school marching band competitions. The survey should take approximately ten (10) minutes, and questions that do not apply to respondents may be omitted without issue.

Subsequent events in this project include:

- Formulation of a “snapshot” of the understanding of contemporary trends in “band centric” populations.
- Essays and articles examining current uses of A&E from a technical standpoint
- Articles and presentations discussing the implementation of A&E methods from a pedagogical standpoint
- Essays and presentations examining A&E from a philosophical perspective
- Materials examining A&E from a financial point-of-view

A&E Task-Force Consortium:

The following organizations are both endorsing and participating in the administration of this project:

- **Marching Roundtable Judges Academy**, Joseph Allison, Curriculum Specialist
- **National Band Association**, Scott Casagrande, President
- **National Association for Music Education**, John Lewis Miller, Band Council Chair
- **American Bandmasters Association School Bands Committee**, Tim Rhea,
President, Roy C. Holder, School Bands Chair
- **John Philip Sousa Foundation**, Col. Lowell E. Graham, President
- **College Band Directors National Association**, Richard Clary, President
- **American School Band Directors Association**, Val Gaffney President

Epilogue Draft:

From the perspective of a High School Band Director, the challenge of incorporating Amplification and Electronic devices into Marching Band is one of the more challenging developments in many years. Perhaps not since the adoption of Drum Corps styled Colorguards/Auxillaries in the 1970's has this activity seen such a significant addition from outside its core curriculum to the demands of fielding a competitively relevant ensemble.

It is likely essential that we again remember that this study is focused on High School Marching Bands, and not competitive Drum Corps. Even though the current stylistic approach can be similar (if not identical) between Band and Corps, the fundamental purposes of the two activities are dissimilar. The primary role of the Marching Band is as an adjunct ensemble of a comprehensive instrumental instructional program focused on the musical literacy of its members. Entertainment, artistic vision, competition, and marketing are not primary roles of the High School Marching Band. These attributes are ancillary values and would not support the existence of a Public School Marching Band as a curricular offering of a school Instructional Program.

A legitimate concern, then, is that an ungoverned use of these electronic devices and techniques not only places a significant human and financial burden on school programs, but also has potential to subvert basic pedagogical achievement principles. When miking techniques and/or synthetic generated sounds can alter basic sound production perceptions in an assessment, then actual student achievement is not being measured legitimately or accurately. In an educational environment where achievement accountability is stressed as justification for public funding and staffing of music programs, any attempts to artificially disguise students' actual skills and achievement is a fundamental ethical question.

We have already seen from this Survey that both Spectators and Performers are critical of the adaptation of synthetic and other specious sounds. Further, the practice of electronically manipulating student performance is antithetical to the fundamental goals of education, as well as a manipulation of competitive assessment standards.

A&E Task-Force Consortium:

The following organizations are both endorsing and participating in the administration of this project:

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- **College Band Directors National Association**, Richard Clary, President
- **American School Band Directors Association**, Val Gaffney President

Amplifying principal/advanced players ok	Freq.	Percent	Cum.
I do not feel I have adequate knowled..	4	0.46	0.46
Maybe	97	11.07	11.53
No	678	77.40	88.93
Yes	97	11.07	100.00
Total	876	100.00	

-> tabulation of q20nr

Multi-tracking ensemble is ok	Freq.	Percent	Cum.
Yes	91	9.32	9.32
No	575	58.91	68.24
Maybe	137	14.04	82.27
Dont have adequate knowledge	41	4.20	86.48
Other (write in)	132	13.52	100.00
Total	976	100.00	

```

283
284 *BASIC PROCESSING
285 *Create a unique id number, drop person identifiers, label variables
286 *Note - if it is necessary to link individuals in this file with identifying information exclude
287 *      email, firstname, lastname from drop list below
288 gen id = _n

289
290 *Drop variables not needed in analysis file
291 drop email firstname lastname an ao ap aq ar as q6 q6n q4 q7 q71n q72n q73n q74n ///
>      q11-q15 q41-q47r q71-q74 q11n-q15n q20 q20n

292
293 order id timestamp role q5 q6nr q8 q9 q10 q11nr q12nr q13nr q14nr q15nr q16 q17 q18 q19 q20nr ///
>      q21 q22 q23 q24 q25 q26 q27 q28 q29 q30 q31 q32 q33 q34 q35 q36 q37 q38 ///
>      spectator volunteer performer adjudicator teacher designer totroles ///
>      rolepattern boa usbands statemb other_circuit

294 save "$datadir\MBES analysis file.dta", replace
file F:\My Documents\Personal\Hobbies\Drum corps\Joe Allison\electronics survey\data\Final\MBES analysis file.dta
> saved

295
296 *Preliminary crosstabs
297
298 foreach x of varlist q5 q6nr q8 q9 q10 q11nr q12nr q13nr q14nr q15nr q16 q17 q18 q19 q20nr ///
> q21 q22 q23 q24 q25 q26 q27 q28 q29 q30 q31 q32 q33 q34 q35 q36 totroles {
2. tab2 `x' role, column
3. numlabel, add
4. }

```

-> tabulation of q5 by role

Key
<i>frequency</i>
<i>column percentage</i>

Curent level of activity	Respondent role (collapsed)			Total
	Broadly i	Designer	Educator/	
Minimally active	7 3.40	1 0.63	14 8.92	74 8.51
2	5 2.43	5 3.14	12 7.64	46 5.29
3	23 11.17	15 9.43	24 15.29	123 14.14
4	48 23.30	32 20.13	44 28.03	212 24.37
Extremely active	123 59.71	106 66.67	63 40.13	415 47.70
Total	206 100.00	159 100.00	157 100.00	870 100.00

Curent level of activity	Respondent role (collapsed)			Total
	Teacher	Performer	Spectator	
Minimally active	39 13.78	5 13.16	8 29.63	74 8.51
2	19 6.71	0 0.00	5 18.52	46 5.29
3	49 17.31	8 21.05	4 14.81	123 14.14
4	70 24.73	12 31.58	6 22.22	212 24.37
Extremely active	106 37.46	13 34.21	4 14.81	415 47.70
Total	283 100.00	38 100.00	27 100.00	870 100.00

-> tabulation of q6nr by role

Key
<i>frequency</i>
<i>column percentage</i>

Total years involvement in Marching Arts	Respondent role (collapsed)				Total
	1. Broadl	2. Design	3. Educat	4. Teache	
1	0 0.00	8 5.03	2 1.27	24 8.48	57 6.55
2	12 5.83	46 28.93	3 1.91	53 18.73	129 14.83
3	24 11.65	24 15.09	13 8.28	45 15.90	109 12.53
4	42 20.39	31 19.50	21 13.38	49 17.31	146 16.78
5	35 16.99	24 15.09	18 11.46	36 12.72	117 13.45
6	93 45.15	26 16.35	100 63.69	76 26.86	312 35.86
Total	206 100.00	159 100.00	157 100.00	283 100.00	870 100.00

Total years involvement in Marching Arts	Respondent role (collapsed)		Total
	5. Perfor	6. Specta	
1	18 47.37	5 18.52	57 6.55
2	10 26.32	5 18.52	129 14.83
3	1 2.63	2 7.41	109 12.53
4	1 2.63	2 7.41	146 16.78
5	1 2.63	3 11.11	117 13.45
6	7 18.42	10 37.04	312 35.86
Total	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q8 by role

Key
<i>frequency</i>
<i>column percentage</i>

Concern about expense of electronic equipment	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not at all concern	24 11.65	16 10.06	10 6.37	71 8.16
2	22 10.68	28 17.61	21 13.38	106 12.18
3	41 19.90	42 26.42	25 15.92	179 20.57
4	61 29.61	33 20.75	46 29.30	234 26.90
5. Extremely concerne	58 28.16	40 25.16	55 35.03	280 32.18
Total	206 100.00	159 100.00	157 100.00	870 100.00

Concern about expense of electronic equipment	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not at all concern	17 6.01	2 5.26	2 7.41	71 8.16
2	31 10.95	2 5.26	2 7.41	106 12.18
3	55 19.43	10 26.32	6 22.22	179 20.57
4	75 26.50	15 39.47	4 14.81	234 26.90
5. Extremely concerne	105 37.10	9 23.68	13 48.15	280 32.18
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q9 by role

Key
<i>frequency</i>
<i>column percentage</i>

Concern about expense of electronics staff	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not at all concern	26 12.62	20 12.58	7 4.46	83 9.54
2	27 13.11	35 22.01	17 10.83	114 13.10
3	36 17.48	30 18.87	30 19.11	153 17.59
4	46 22.33	43 27.04	40 25.48	217 24.94
5. Extremely concerne	71 34.47	31 19.50	63 40.13	303 34.83
Total	206 100.00	159 100.00	157 100.00	870 100.00

Concern about expense of electronics staff	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not at all concern	23 8.13	4 10.53	3 11.11	83 9.54
2	32 11.31	1 2.63	2 7.41	114 13.10
3	41 14.49	10 26.32	6 22.22	153 17.59
4	69 24.38	14 36.84	5 18.52	217 24.94
5. Extremely concerne	118 41.70	9 23.68	11 40.74	303 34.83
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q10 by role

Key
<i>frequency</i>
<i>column percentage</i>

Concern about ethical/legal issues	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Minimally concerne	27 13.11	43 27.04	18 11.46	141 16.21
2	37 17.96	31 19.50	25 15.92	151 17.36
3	33 16.02	25 15.72	24 15.29	143 16.44
4	53 25.73	28 17.61	34 21.66	187 21.49
5. Extremely concerne	56 27.18	32 20.13	56 35.67	248 28.51
Total	206 100.00	159 100.00	157 100.00	870 100.00

Concern about ethical/legal issues	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Minimally concerne	45 15.90	8 21.05	0 0.00	141 16.21
2	46 16.25	6 15.79	6 22.22	151 17.36
3	49 17.31	6 15.79	6 22.22	143 16.44
4	60 21.20	7 18.42	5 18.52	187 21.49
5. Extremely concerne	83 29.33	11 28.95	10 37.04	248 28.51
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q11nr by role

Key
<i>frequency</i>
<i>column percentage</i>

Microphones in MB are NEVER appropriate	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Yes	9 4.37	7 4.40	11 7.01	78 8.97
2. No	121 58.74	109 68.55	62 39.49	419 48.16
3. Maybe	64 31.07	36 22.64	77 49.04	326 37.47
4. Dont have adequate	2 0.97	0 0.00	0 0.00	4 0.46
5. Other (write in)	10 4.85	7 4.40	7 4.46	43 4.94
Total	206 100.00	159 100.00	157 100.00	870 100.00

Microphones in MB are NEVER appropriate	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Yes	38 13.43	5 13.16	8 29.63	78 8.97
2. No	110 38.87	15 39.47	2 7.41	419 48.16
3. Maybe	119 42.05	14 36.84	16 59.26	326 37.47
4. Dont have adequate	2 0.71	0 0.00	0 0.00	4 0.46
5. Other (write in)	14 4.95	4 10.53	1 3.70	43 4.94
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q12nr by role

Key
<i>frequency</i>
<i>column percentage</i>

Only soloists should be amplified	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Yes	85 41.26	58 36.48	83 52.87	418 48.05
2. No	64 31.07	53 33.33	27 17.20	205 23.56
3. Maybe	44 21.36	28 17.61	40 25.48	181 20.80
4. Dont have adequate	0 0.00	0 0.00	0 0.00	4 0.46
5. Other (write in)	13 6.31	20 12.58	7 4.46	62 7.13
Total	206 100.00	159 100.00	157 100.00	870 100.00

Only soloists should be amplified	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Yes	160 56.54	19 50.00	13 48.15	418 48.05
2. No	50 17.67	8 21.05	3 11.11	205 23.56
3. Maybe	53 18.73	8 21.05	8 29.63	181 20.80
4. Dont have adequate	4 1.41	0 0.00	0 0.00	4 0.46

5. Other (write in)	16 5.65	3 7.89	3 11.11	62 7.13
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q13nr by role

Key
<i>frequency</i>
<i>column percentage</i>

Only woodwind soloists should be amplified	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Yes	30 14.56	24 15.09	48 30.57	188 21.61
2. No	122 59.22	102 64.15	70 44.59	451 51.84
3. Maybe	41 19.90	23 14.47	32 20.38	179 20.57
4. Dont have adequate	1 0.49	0 0.00	1 0.64	5 0.57
5. Other (write in)	12 5.83	10 6.29	6 3.82	47 5.40
Total	206 100.00	159 100.00	157 100.00	870 100.00

Only woodwind soloists should be amplified	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Yes	72 25.44	7 18.42	7 25.93	188 21.61
2. No	131 46.29	19 50.00	7 25.93	451 51.84
3. Maybe	63 22.26	10 26.32	10 37.04	179 20.57
4. Dont have adequate	3 1.06	0 0.00	0 0.00	5 0.57
5. Other (write in)	14 4.95	2 5.26	3 11.11	47 5.40
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q14nr by role

Key
<i>frequency</i>
<i>column percentage</i>

Miking grounded keyboards is ok	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Yes	163 79.13	139 87.42	102 64.97	620 71.26
2. No	18 8.74	7 4.40	21 13.38	104 11.95
3. Maybe	17 8.25	10 6.29	32 20.38	116 13.33
4. Dont have adequate	2 0.97	1 0.63	1 0.64	14 1.61
5. Other (write in)	6 2.91	2 1.26	1 0.64	16 1.84

Total	206	159	157	870
	100.00	100.00	100.00	100.00

Miking grounded keyboards is ok	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Yes	182 64.31	29 76.32	5 18.52	620 71.26
2. No	45 15.90	6 15.79	7 25.93	104 11.95
3. Maybe	44 15.55	2 5.26	11 40.74	116 13.33
4. Dont have adequate	7 2.47	0 0.00	3 11.11	14 1.61
5. Other (write in)	5 1.77	1 2.63	1 3.70	16 1.84
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q15nr by role

Key
<i>frequency</i>
<i>column percentage</i>

Miking live vocalists is appropriate	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Yes	174 84.47	138 86.79	129 82.17	705 81.03
2. No	14 6.80	3 1.89	15 9.55	65 7.47
3. Maybe	9 4.37	10 6.29	10 6.37	60 6.90
4. Dont have adequate	2 0.97	2 1.26	1 0.64	11 1.26
5. Other (write in)	7 3.40	6 3.77	2 1.27	29 3.33
Total	206 100.00	159 100.00	157 100.00	870 100.00

Miking live vocalists is appropriate	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Yes	218 77.03	29 76.32	17 62.96	705 81.03
2. No	24 8.48	3 7.89	6 22.22	65 7.47
3. Maybe	26 9.19	4 10.53	1 3.70	60 6.90
4. Dont have adequate	6 2.12	0 0.00	0 0.00	11 1.26
5. Other (write in)	9 3.18	2 5.26	3 11.11	29 3.33
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q16 by role

Key
<i>frequency</i>
<i>column percentage</i>

Amplified pre-recorded solo vocals is ok	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
I do not feel I hav..	2 0.97	1 0.63	2 1.27	34 3.91
If it is a commerci..	7 3.40	11 6.92	9 5.73	31 3.56
If it is from an am..	19 9.22	17 10.69	18 11.46	91 10.46
Maybe	36 17.48	25 15.72	27 17.20	133 15.29
No, must be "live"	94 45.63	51 32.08	88 56.05	418 48.05
Yes	48 23.30	54 33.96	13 8.28	163 18.74
Total	206 100.00	159 100.00	157 100.00	870 100.00

Amplified pre-recorded solo vocals is ok	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
I do not feel I hav..	25 8.83	4 10.53	0 0.00	34 3.91
If it is a commerci..	2 0.71	2 5.26	0 0.00	31 3.56
If it is from an am..	30 10.60	6 15.79	1 3.70	91 10.46
Maybe	36 12.72	7 18.42	2 7.41	133 15.29
No, must be "live"	149 52.65	13 34.21	23 85.19	418 48.05
Yes	41 14.49	6 15.79	1 3.70	163 18.74
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q17 by role

Key
<i>frequency</i>
<i>column percentage</i>

Amplified samples of non-band instruments ok	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
I do not feel I hav..	1 0.49	0 0.00	0 0.00	12 1.38
Maybe	43 20.87	25 15.72	48 30.57	190 21.84
No	71 34.47	37 23.27	71 45.22	354 40.69
Only solos	1 0.49	2 1.26	2 1.27	13 1.49
Yes	90 43.69	95 59.75	36 22.93	301 34.60
Total	206 100.00	159 100.00	157 100.00	870 100.00

Amplified samples of non-band instruments ok	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
I do not feel I hav..	10 3.53	1 2.63	0 0.00	12 1.38
Maybe	62 21.91	7 18.42	5 18.52	190 21.84
No	136 48.06	18 47.37	21 77.78	354 40.69
Only solos	6 2.12	2 5.26	0 0.00	13 1.49
Yes	69 24.38	10 26.32	1 3.70	301 34.60
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q18 by role

Key
<i>frequency</i>
<i>column percentage</i>

Shotgun mics for entire sections ok	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
I do not feel I hav..	1 0.49	3 1.89	0 0.00	18 2.07
Maybe	51 24.76	38 23.90	26 16.56	172 19.77
No	108 52.43	67 42.14	114 72.61	524 60.23
Yes	46 22.33	51 32.08	17 10.83	156 17.93
Total	206 100.00	159 100.00	157 100.00	870 100.00

Shotgun mics for entire sections ok	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
I do not feel I hav..	12 4.24	1 2.63	1 3.70	18 2.07
Maybe	48 16.96	7 18.42	2 7.41	172 19.77
No	189 66.78	24 63.16	22 81.48	524 60.23
Yes	34 12.01	6 15.79	2 7.41	156 17.93
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q19 by role

Key
<i>frequency</i>
<i>column percentage</i>

Amplifying principal/advanced players ok	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
I do not feel I hav..	2 0.97	0 0.00	0 0.00	3 0.34
Maybe	31 15.05	23 14.47	16 10.19	96 11.03
No	150 72.82	103 64.78	131 83.44	676 77.70
Yes	23 11.17	33 20.75	10 6.37	95 10.92
Total	206 100.00	159 100.00	157 100.00	870 100.00

Amplifying principal/advanced players ok	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
I do not feel I hav..	1 0.35	0 0.00	0 0.00	3 0.34
Maybe	22 7.77	1 2.63	3 11.11	96 11.03
No	239 84.45	29 76.32	24 88.89	676 77.70
Yes	21 7.42	8 21.05	0 0.00	95 10.92
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q20nr by role

Key
<i>frequency</i>
<i>column percentage</i>

Multi-tracking ensemble is ok	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Yes	25 12.14	29 18.24	4 2.55	90 10.34
2. No	124 60.19	84 52.83	120 76.43	573 65.86
3. Maybe	40 19.42	31 19.50	25 15.92	135 15.52
4. Dont have adequate	6 2.91	6 3.77	5 3.18	40 4.60
5. Other (write in)	11 5.34	9 5.66	3 1.91	32 3.68
Total	206 100.00	159 100.00	157 100.00	870 100.00

Multi-tracking ensemble is ok	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Yes	27 9.54	4 10.53	1 3.70	90 10.34
2. No	198 69.96	24 63.16	23 85.19	573 65.86
3. Maybe	30 10.60	7 18.42	2 7.41	135 15.52
4. Dont have adequate	20 7.07	2 5.26	1 3.70	40 4.60
5. Other (write in)	8 2.83	1 2.63	0 0.00	32 3.68
Total	283	38	27	870

100.00 100.00 100.00 | 100.00

(no value label to be modified)

-> tabulation of q21 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 1	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not ethical & acce	111 53.88	63 39.62	111 70.70	507 58.28
2	42 20.39	37 23.27	23 14.65	182 20.92
3	20 9.71	21 13.21	16 10.19	79 9.08
4	14 6.80	11 6.92	3 1.91	38 4.37
5. Very ethical & acc	19 9.22	27 16.98	4 2.55	64 7.36
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 1	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not ethical & acce	182 64.31	19 50.00	21 77.78	507 58.28
2	64 22.61	12 31.58	4 14.81	182 20.92
3	20 7.07	1 2.63	1 3.70	79 9.08
4	6 2.12	4 10.53	0 0.00	38 4.37
5. Very ethical & acc	11 3.89	2 5.26	1 3.70	64 7.36
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q22 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 2	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not ethical & acce	107 51.94	63 39.62	108 68.79	492 56.55
2	44 21.36	37 23.27	26 16.56	185 21.26
3	20 9.71	20 12.58	15 9.55	86 9.89
4	15 7.28	12 7.55	4 2.55	42 4.83
5. Very ethical & acc	20 9.71	27 16.98	4 2.55	65 7.47
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 2	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not ethical & acce	176 62.19	17 44.74	21 77.78	492 56.55
2	61 21.55	14 36.84	3 11.11	185 21.26
3	28 9.89	1 2.63	2 7.41	86 9.89
4	7 2.47	4 10.53	0 0.00	42 4.83
5. Very ethical & acc	11 3.89	2 5.26	1 3.70	65 7.47
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q23 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 3	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not ethical & acce	102 49.51	60 37.74	105 66.88	470 54.02
2	42 20.39	33 20.75	25 15.92	172 19.77
3	23 11.17	19 11.95	15 9.55	92 10.57
4	18 8.74	18 11.32	6 3.82	63 7.24
5. Very ethical & acc	21 10.19	29 18.24	6 3.82	73 8.39
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 3	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not ethical & acce	166 58.66	17 44.74	20 74.07	470 54.02
2	58 20.49	10 26.32	4 14.81	172 19.77
3	29 10.25	5 13.16	1 3.70	92 10.57
4	17 6.01	3 7.89	1 3.70	63 7.24
5. Very ethical & acc	13 4.59	3 7.89	1 3.70	73 8.39
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q24 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 4	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not ethical & acce	94 45.63	50 31.45	98 62.42	434 49.89
2	40 19.42	39 24.53	27 17.20	171 19.66
3	33 16.02	20 12.58	16 10.19	116 13.33
4	17 8.25	19 11.95	9 5.73	67 7.70
5. Very ethical & acc	22 10.68	31 19.50	7 4.46	82 9.43
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 4	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not ethical & acce	155 54.77	16 42.11	21 77.78	434 49.89
2	59 20.85	4 10.53	2 7.41	171 19.66
3	36 12.72	10 26.32	1 3.70	116 13.33
4	16 5.65	4 10.53	2 7.41	67 7.70
5. Very ethical & acc	17 6.01	4 10.53	1 3.70	82 9.43
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q25 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 5	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not ethical & acce	169 82.04	114 71.70	145 92.36	729 83.79
2	21 10.19	21 13.21	10 6.37	79 9.08
3	7 3.40	13 8.18	2 1.27	33 3.79
4	1 0.49	2 1.26	0 0.00	7 0.80
5. Very ethical & acc	8 3.88	9 5.66	0 0.00	22 2.53
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 5	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not ethical & acce	248 87.63	29 76.32	24 88.89	729 83.79
2	19 6.71	5 13.16	3 11.11	79 9.08
3	9 3.18	2 5.26	0 0.00	33 3.79
4	2 0.71	2 5.26	0 0.00	7 0.80

5. Very ethical & acc	5 1.77	0 0.00	0 0.00	22 2.53
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q26 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 6	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not ethical & acce	171 83.01	120 75.47	146 92.99	743 85.40
2	21 10.19	18 11.32	9 5.73	75 8.62
3	6 2.91	11 6.92	2 1.27	27 3.10
4	0 0.00	2 1.26	0 0.00	4 0.46
5. Very ethical & acc	8 3.88	8 5.03	0 0.00	21 2.41
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 6	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not ethical & acce	251 88.69	30 78.95	25 92.59	743 85.40
2	20 7.07	5 13.16	2 7.41	75 8.62
3	7 2.47	1 2.63	0 0.00	27 3.10
4	0 0.00	2 5.26	0 0.00	4 0.46
5. Very ethical & acc	5 1.77	0 0.00	0 0.00	21 2.41
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q27 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 7	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. I cant distinguish	9 4.37	2 1.26	11 7.01	49 5.63
2	19 9.22	8 5.03	17 10.83	84 9.66
3	62 30.10	46 28.93	46 29.30	272 31.26
4	74 35.92	67 42.14	58 36.94	306 35.17
5. I can always disti	42 20.39	36 22.64	25 15.92	159 18.28
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 7	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. I cant distinguish	22 7.77	3 7.89	2 7.41	49 5.63
2	31 10.95	4 10.53	5 18.52	84 9.66
3	99 34.98	10 26.32	9 33.33	272 31.26
4	86 30.39	13 34.21	8 29.63	306 35.17
5. I can always disti	45 15.90	8 21.05	3 11.11	159 18.28
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q28 by role

Key
<i>frequency</i>
<i>column percentage</i>

Scenario 8	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not ethical & acce	51 24.76	19 11.95	59 37.58	243 27.93
2	17 8.25	16 10.06	21 13.38	110 12.64
3	51 24.76	45 28.30	36 22.93	203 23.33
4	29 14.08	25 15.72	24 15.29	130 14.94
5. Very ethical & acc	58 28.16	54 33.96	17 10.83	184 21.15
Total	206 100.00	159 100.00	157 100.00	870 100.00

Scenario 8	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not ethical & acce	92 32.51	8 21.05	14 51.85	243 27.93
2	50 17.67	3 7.89	3 11.11	110 12.64
3	59 20.85	8 21.05	4 14.81	203 23.33
4	40 14.13	8 21.05	4 14.81	130 14.94
5. Very ethical & acc	42 14.84	11 28.95	2 7.41	184 21.15
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q29 by role

Key
<i>frequency</i>
<i>column percentage</i>

How well adjudication rubrics address electronics	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Not specifically	79 38.35	57 35.85	72 45.86	329 37.82
2	84 40.78	54 33.96	51 32.48	297 34.14
3	33 16.02	40 25.16	27 17.20	206 23.68
4	9 4.37	6 3.77	6 3.82	30 3.45
5. Extremely well & s	1 0.49	2 1.26	1 0.64	8 0.92
Total	206 100.00	159 100.00	157 100.00	870 100.00

How well adjudication rubrics address electronics	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Not specifically	107 37.81	9 23.68	5 18.52	329 37.82
2	88 31.10	13 34.21	7 25.93	297 34.14
3	78 27.56	14 36.84	14 51.85	206 23.68
4	8 2.83	1 2.63	0 0.00	30 3.45
5. Extremely well & s	2 0.71	1 2.63	1 3.70	8 0.92
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q30 by role

Key
<i>frequency</i>
<i>column percentage</i>

How well practical interp in rubrics address electronics	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
Extremely well and ..	14 6.83	15 9.43	11 7.05	55 6.37
I do not feel I hav..	43 20.98	56 35.22	39 25.00	329 38.08
Not at all	148 72.20	88 55.35	106 67.95	480 55.56
Total	205 100.00	159 100.00	156 100.00	864 100.00

How well practical interp in rubrics address electronics	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
Extremely well and ..	13 4.63	2 5.41	0 0.00	55 6.37
I do not feel I hav..	139 49.47	30 81.08	22 84.62	329 38.08
Not at all	129 45.91	5 13.51	4 15.38	480 55.56
Total	281 100.00	37 100.00	26 100.00	864 100.00

(no value label to be modified)

-> tabulation of q31 by role

Key
<i>frequency</i>
<i>column percentage</i>

Difficulty for judges imposed by electronics	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Very easy	9 4.37	10 6.29	11 7.01	39 4.48
2	23 11.17	30 18.87	20 12.74	109 12.53
3	86 41.75	63 39.62	57 36.31	354 40.69
4	67 32.52	47 29.56	51 32.48	276 31.72
5. Terribly difficult	21 10.19	9 5.66	18 11.46	92 10.57
Total	206 100.00	159 100.00	157 100.00	870 100.00

Difficulty for judges imposed by electronics	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Very easy	7 2.47	1 2.63	1 3.70	39 4.48
2	32 11.31	2 5.26	2 7.41	109 12.53
3	117 41.34	18 47.37	13 48.15	354 40.69
4	94 33.22	11 28.95	6 22.22	276 31.72
5. Terribly difficult	33 11.66	6 15.79	5 18.52	92 10.57
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q32 by role

Key
<i>frequency</i>
<i>column percentage</i>

Highest formal degree in music	Respondent role (collapsed)				Total
	1. Broadl	2. Design	3. Educat	4. Teache	
Graduate	78 38.24	51 32.48	66 44.00	107 38.91	307 36.25
High School	2 0.98	8 5.10	2 1.33	12 4.36	48 5.67
Middle School	0 0.00	0 0.00	0 0.00	1 0.36	1 0.12
Post-Graduate	63 30.88	11 7.01	55 36.67	61 22.18	197 23.26
Undergraduate	61 29.90	87 55.41	27 18.00	94 34.18	294 34.71
Total	204 100.00	157 100.00	150 100.00	275 100.00	847 100.00

Highest formal degree in music	Respondent role (collapsed)		Total
	5. Perfor	6. Specta	
Graduate	1 2.94	4 14.81	307 36.25
High School	16 47.06	8 29.63	48 5.67
Middle School	0 0.00	0 0.00	1 0.12
Post-Graduate	1 2.94	6 22.22	197 23.26
Undergraduate	16 47.06	9 33.33	294 34.71
Total	34 100.00	27 100.00	847 100.00

(no value label to be modified)

-> tabulation of q33 by role

Key
<i>frequency</i>
<i>column percentage</i>

Extensive training in electronic equipment	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
No	107 51.94	67 42.14	109 69.43	497 57.13
Some or obsolete	56 27.18	60 37.74	40 25.48	256 29.43
Yes	43 20.87	32 20.13	8 5.10	117 13.45
Total	206 100.00	159 100.00	157 100.00	870 100.00

Extensive training in electronic equipment	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
No	170 60.07	25 65.79	19 70.37	497 57.13
Some or obsolete	84 29.68	10 26.32	6 22.22	256 29.43
Yes	29 10.25	3 7.89	2 7.41	117 13.45
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q34 by role

Key
<i>frequency</i>
<i>column percentage</i>

Extensive training in sound reinforcement equipment	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
No	122 59.51	85 53.46	117 75.00	564 65.05
Some or obsolete	48 23.41	47 29.56	30 19.23	203 23.41

Yes	35 17.07	27 16.98	9 5.77	100 11.53
Total	205 100.00	159 100.00	156 100.00	867 100.00

Extensive training in sound reinforcement equipment	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
No	193 68.20	26 70.27	21 77.78	564 65.05
Some or obsolete	66 23.32	6 16.22	6 22.22	203 23.41
Yes	24 8.48	5 13.51	0 0.00	100 11.53
Total	283 100.00	37 100.00	27 100.00	867 100.00

(no value label to be modified)

-> tabulation of q35 by role

Key
<i>frequency</i>
<i>column percentage</i>

Preparedness for using electronics in music performance	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. Minimally prepared	107 51.94	71 44.65	105 66.88	489 56.21
2	42 20.39	35 22.01	35 22.29	181 20.80
3	26 12.62	26 16.35	10 6.37	107 12.30
4	19 9.22	15 9.43	7 4.46	56 6.44
5. Extremely prepared	12 5.83	12 7.55	0 0.00	37 4.25
Total	206 100.00	159 100.00	157 100.00	870 100.00

Preparedness for using electronics in music performance	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. Minimally prepared	167 59.01	20 52.63	19 70.37	489 56.21
2	59 20.85	7 18.42	3 11.11	181 20.80
3	34 12.01	7 18.42	4 14.81	107 12.30
4	13 4.59	2 5.26	0 0.00	56 6.44
5. Extremely prepared	10 3.53	2 5.26	1 3.70	37 4.25
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of q36 by role

Key
<i>frequency</i>
<i>column percentage</i>

Should colleges require instruction on electronics	Respondent role (collapsed)			Total
	1. Broadl	2. Design	3. Educat	
1. No-other things mo	40 19.42	16 10.06	38 24.20	178 20.46
2	28 13.59	13 8.18	24 15.29	114 13.10
3	36 17.48	27 16.98	36 22.93	173 19.89
4	47 22.82	51 32.08	32 20.38	195 22.41
5. Yes-this is basic	55 26.70	52 32.70	27 17.20	210 24.14
Total	206 100.00	159 100.00	157 100.00	870 100.00

Should colleges require instruction on electronics	Respondent role (collapsed)			Total
	4. Teache	5. Perfor	6. Specta	
1. No-other things mo	65 22.97	8 21.05	11 40.74	178 20.46
2	47 16.61	2 5.26	0 0.00	114 13.10
3	63 22.26	6 15.79	5 18.52	173 19.89
4	48 16.96	12 31.58	5 18.52	195 22.41
5. Yes-this is basic	60 21.20	10 26.32	6 22.22	210 24.14
Total	283 100.00	38 100.00	27 100.00	870 100.00

(no value label to be modified)

-> tabulation of totroles by role

Key
<i>frequency</i>
<i>column percentage</i>

Total number of roles reported by respondent	Respondent role (collapsed)				Total
	1. Broadl	2. Design	3. Educat	4. Teache	
1	0 0.00	3 1.89	9 5.73	163 57.60	199 22.87
2	2 0.97	67 42.14	78 49.68	84 29.68	262 30.11
3	93 45.15	68 42.77	57 36.31	29 10.25	257 29.54
4	74 35.92	21 13.21	13 8.28	7 2.47	115 13.22
5	37 17.96	0 0.00	0 0.00	0 0.00	37 4.25
Total	206 100.00	159 100.00	157 100.00	283 100.00	870 100.00

Total number of roles reported by respondent	Respondent role (collapsed)		Total
	5. Perfor	6. Specta	
1	7 18.42	17 62.96	199 22.87
2	21 55.26	10 37.04	262 30.11
3	10 26.32	0 0.00	257 29.54
4	0 0.00	0 0.00	115 13.22
5	0 0.00	0 0.00	37 4.25
Total	38 100.00	27 100.00	870 100.00

(no value label to be modified)

```

299 *end of loop
300
301
302
303 *Save a log file as PDF - Put at end of do file
304 log close
      name: <unnamed>
      log: F:\My Documents\Personal\Hobbies\Drum corps\Joe Allison\electronics survey\analysis\final-round1\read
> and process raw data.smcl
      log type: smcl
      closed on: 7 Feb 2018, 21:56:34

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