

## **Our Inspiration:**

As we went through our day-to-day life, we saw an epidemic—screen addiction. Screen addiction is on its way to build a building, block by block, on top of each other as time passes. This is something that will strongly affect our future generations. Television, computers, video games, cell phones, iPads, and other electronics are all pulling students into an addiction like quick sand. We, as responsible adolescents, took this epidemic into our hands and tried to turn it around.

As students, we contribute to the hardworking, conscientious population of our schools. Raised in an environment where emphasis is always laid on working hard, focusing, doing things in a balanced way, and helping each other, we strive to exceed expectation in every aspect. **We are aiming to make a better society by increasing awareness and implementing media education into today's society.**

We look forward to making a difference in the world!

**Question:**

We go to school and hear about teenagers who have been sent to the principal's office for texting or playing games on his/her phone. We go to our friends' houses and see most of our peers playing on video games, on the internet, texting, playing on their phones, etc. We walk around and see small children on the screen too.

Is too much screen bad for us? Could we get an addiction? The fact of the matter is yes. We can all get addicted to the screen without even knowing until it is too late. The problem is that students in our generation lack media education; they are unaware that the screen can be extremely harmful.

So we raised a question:

**Can we adolescents increase the awareness about screen addiction in our peers and thus start the education process for the bad, damaging effects of the screen through media education?**

The term screen relates to any non-educational use of television, computer, cell phones, iTouch, iPad, video games, etc.

Media Education helps one distinguish between the good and bad parts of media and technology. Children are getting addicted to screen which is resulting in poor grades, increased stress, and violence. Extensive data is available documenting the bad effects of screen related activity. On the other hand, there are a lot of advantages as well. We all want our peers to advance with the benefits of technology and at the same time avoid the addicting and negative aspects. Media Education helps with this.

**Hypothesis:**

The American Academy of Pediatrics (AAP) states in their policy statement on media violence that just 1 to 2 minutes of counseling by pediatricians in their office have proved to be helpful in increasing the children's awareness. Can our 1 to 2 minute survey do the same?

We hypothesized:

**If we teenagers use an effective survey, then we can increase the awareness about screen addiction in our peers and start the process to implement changes in schools and our society.**

## **Research:**

Before we began our actual project, we analyzed the situation of the problem. The studies currently in scientific journals are mainly on the harmful effects of screen addiction. Nothing much has been done by scientists to see the effects of media awareness in the society by informing them of the damaging effects of screen. We studied data from the American Academy of Pediatrics (AAP) and the National Institute of Health (NIH).

According to the AAP, teenagers and children have started to over use their access to media--specifically that on the screen. These days, children are engaged in screen activities longer than anything else they do except sleeping. At an average, they spend more than 7 hours with different types of media every day. At this rate, by the time they are at the age of 70 years, and equivalent of 7 to 10 years of their lives would have been devoted to just the television.

Although there are some definite benefits, when one spends too much time on the screen, there tends to be several negative effects. Media Violence, sexual content in media, and glamorization of the use of tobacco and drugs is shocking. As per the AAP, in the first 10 months of 2004, the makers of erectile-dysfunction drugs spent nearly \$350 million on advertising, which makes sex seem like a harmless recreational activity. Smoking and use of drugs are glamorized in movies, and on television alcohol remains number 1 drug portrayed on American television. In fact, there is 1 drinking scene every 22 minutes. Results of more than 2000 scientific studies and reviews have shown that significant exposure to media violence increases the risk of aggressive behavior in certain children and adolescents and desensitizes them to violence making them believe that the world is a meaner, scarier place than it is. Excessive television usage is also one of the major factors that lead to obesity, poor academic result, poor relationships with family and/or friends, and many other negative things.

As stated by the AAP on the value of media education, "Media education has the potential to reduce harmful media effects. In the past 2 centuries, to be "literate" meant that a person could read and write. In the new millennium, to be "literate" means that a person can successfully understand and decode a variety of different media." As you can see media education strongly benefit many people.

## **Experiment:**

To test our hypothesis, we had to go through a lengthy process.

We first created a short, multiple choice survey, wording our questions in a way to increase the awareness on the harmful effects of media. We included a specific question that was placed as the very first and last question in the survey. It asked them how severe they thought the problem of screen addiction was. (This is referred to as the Pre/Post Awareness Question.)

After receiving permission from the principals of 6 private and public schools, we conducted a cross sectional survey in central Oklahoma. Surveys were given to all students present on a particular day in two private high schools (grades 9-12) and one public middle school (only grade 8), in a few classes by certain teachers in two public high schools and one public middle school, and through friends. We surveyed a total of 2,040 students, but 15.54% (317) of them were deleted, leaving us with 1,723 of them to enter. There were several reasons for deletion. These included the pre/post question not being answered, multiple answers to the same question, question(s) not being answered, and the grade level being less than 8th grade or more than 12th.

In order to easily analyze the data we had obtained, we manually entered all the applicable surveys on Survey Monkey. Then, we analyzed the data for each question. We also recorded the difference between the pre awareness question and the post awareness question to see if we had increased the awareness level of the students. Finally, we created graphs and charts to compare the results of different awareness changes.

We then sent a one-question survey on Survey Monkey to the administrators of the schools. The question stated, "The American Academy of Pediatrics states that 'Schools need to begin implementing media education into their curricula. The simplest way to do this would be to incorporate principles of media education into existing programs on drug prevention and sex education.' I would be willing to incorporate these changes in my school/school district." It was only sent to the 15 key people in the educational system who were informed about our project. These were the superintendent of a school district, director of secondary education, five board members, and 8 principals. We then analyzed their responses.

**Sample Size:**

<b>School</b>	<b>Total Given</b>	<b>Cancelled</b>	<b>Entered</b>
<b>Private HS 1</b>	<b>376</b>	<b>68</b>	<b>308</b>
<b>Private HS 2</b>	<b>527</b>	<b>99</b>	<b>428</b>
<b>Public HS 1</b>	<b>522</b>	<b>61</b>	<b>461</b>
<b>Public HS 2</b>	<b>56</b>	<b>4</b>	<b>52</b>
<b>Public MS 1</b>	<b>333</b>	<b>44</b>	<b>289</b>
<b>Public MS 2</b>	<b>164</b>	<b>22</b>	<b>142</b>
<b>Miscellaneous (Through Friends)</b>	<b>62</b>	<b>19</b>	<b>43</b>

Data:

Table 1:

	Questions :	On screen more than planned	Cannot live without screen for a week	More screen time than family	3 hours of screen a day on average	Screen = obesity and stress	Screen = poor grades	Screen = aggression and bad relations	Screen = a problem and it will grow	Screens can = addictions	I would help with stopping screen addiction
Strongly Agree		22.2% (383)	15.9% (274)	3.9% (68)	16.0% (275)	21.6% (373)	18.0% (310)	9.2% (158)	24.6% (423)	7.4% (128)	6.8% (117)
Agree		53.0% (914)	26.6% (459)	15.0% (259)	39.2% (675)	41.6% (716)	39.7% (684)	33.1% (571)	46.4% (800)	33.8% (583)	35.9% (618)
Disagree		20.8% (358)	40.0% (689)	48.0% (827)	31.5% (543)	25.7% (442)	29.3% (505)	39.7% (684)	21.9% (377)	41.1% (708)	39.1% (674)
Strongly Disagree		3.9% (68)	17.5% (301)	33.0% (569)	13.3% (230)	11.1% (192)	13.0% (224)	18.0% (310)	7.1% (123)	17.6% (304)	18.2% (314)
Strongly Agree & Agree		75.2% (1297)	42.5% (733)	18.9% (327)	55.2% (950)	63.2% (1089)	57.7% (994)	42.3% (729)	71% (1223)	41.2% (711)	42.7% (735)
Strongly Disagree & Disagree		24.7% (426)	57.5% (990)	81% (1396)	44.8% (773)	36.8% (634)	42.3% (729)	57.7% (994)	29% (500)	58.7% (1012)	57.3% (988)

Table 2:

Pre and Post Awareness:	1	2	3	4	5	6	7	8	9	10
Pre-Awareness	4.6% (79)	3.0% (52)	5.8% (100)	7.8% (134)	13.6% (235)	13.6% (235)	20.1% (347)	17.8% (307)	7.7% (132)	5.9% (102)
Post-Awareness	4.9% (84)	3.1% (53)	4.4% (75)	6.4% (111)	12.8% (220)	12.1% (208)	19.2% (330)	18.9% (325)	10.8% (186)	7.6% (131)

Though we have an extensive amount of data, we deciphered all the percentages and numbers that have contributed to our conclusion. First, we took all our data and divided it into two tables. The first table has the questions which could be answered with either the terms agree, strongly agree, disagree, and strongly disagree. 75% of our survey takers admitted that they spent more time on the screen than they planned to. Another 71% felt that the screen was a problem and that it would also grow in the future. 41% felt that they could have an addiction from screens. 63% said that they agreed that obesity was linked to screen use in excess, and the screen was linked to poor grades also. Even then, 80% stated that they spent more time with their family and friends than they did on the screens. This percentage shows that the problem has not majorly impacted the relationships in families in this area yet. We also found that 42.7% of students said that they were willing to help educate others. The second table represented the awareness levels before and after taking our survey. We saw that the awareness level in numbers 8, 9, and 10 increased in the Post-Awareness Response.

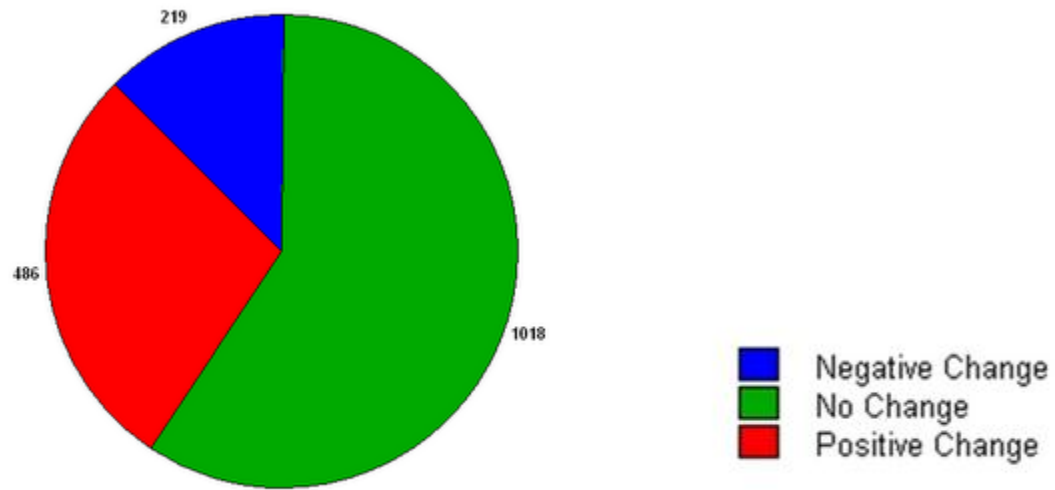
### Awareness Change Graph:

Negative Change relates to the decrease between the pre/post awareness numbers

No Change refers to no change in the pre and post awareness number



Positive Change means that there was an increase in awareness number between the pre and post awareness questions



### School Results:

School	Negative Change	No Change	Positive Change	Total Surveys Taken
Private HS 1	7.7% (24)	58.8% (181)	33.5% (103)	308
Private HS 2	16.4% (70)	57.0% (244)	26.6% (114)	428
Public HS 1	11.9% (55)	64.9% (299)	23.2% (107)	461
Public HS 2	13.4% (7)	71.2% (37)	15.4% (8)	52
Public MS 1	13.1% (38)	54.7% (158)	32.2% (93)	289
Public MS 2	13.4% (19)	56.3% (80)	43% (28)	142
<b>Total Average (Including Misc.)</b>	<b>12.7% (219)</b>	<b>59.1% (1018)</b>	<b>28.2% (486)</b>	<b>1723</b>

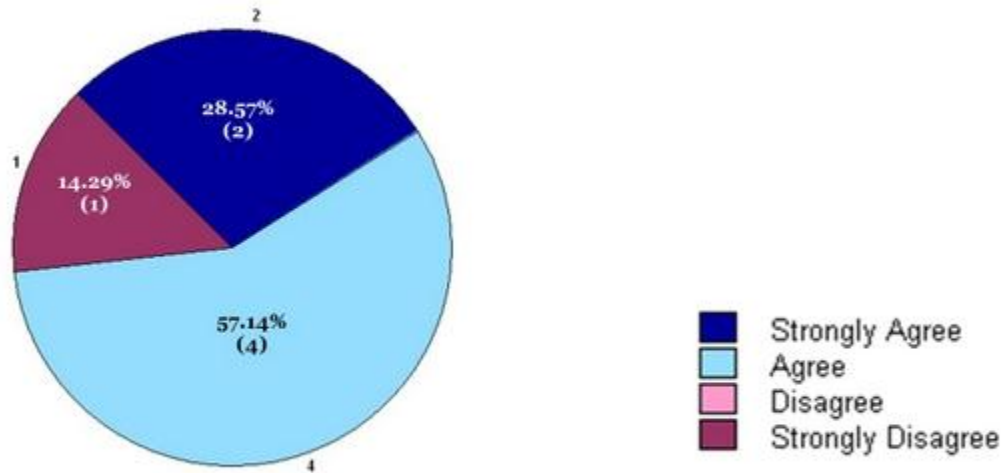
As you can see, there is a similar trend in each school. As per our hypothesis, there was a positive awareness change in 28.2% of the students. However, there was an unexpected result of negative awareness in 12.7% of the students.

### Administrators' Survey:

Statement:

The American Academy of Pediatrics states that "Schools need to begin implementing media education in their curricula. The simplest way to do this would be to incorporate principles of media education into existing programs on drug prevention and sex education." I would be willing to incorporate these changes in my school/school district.

**Results:**



As you can see, the majority (85.71%) of the administrators had agreed that they would support us in implementing changes and adding media education into their curriculum.

## Observations:

Along with the expected, positive awareness increases, we got some surprising responses. A portion of our population had a decrease in awareness level (12.7%), without any apparent explanation. We thought of reasons for this variation; there were similar trends in every school. Had they misunderstood the pre/post question, thinking that we were asking how severe the problem was within them, not the society as a whole? A likely possibility is that these students either don't spend much time on the screen or spend way too much time on it. Either way, they are likely to be keeping high grades. They wouldn't think that screen addiction can be a problem if they are doing well in school or don't have any of the other negative aspects of screen addiction. Therefore, they marked the post survey question as a less severe problem.

## Question: I spend more than an average of 3 hours on the screen per day.

	All Responses	No Change	Negative Responses	Positive Responses
<b>Total</b>	<b>1,723</b>	<b>1018</b>	<b>219</b>	<b>486</b>
<b>Strongly Agree</b>	<b>16.0% (275)</b>	<b>15.0% (153)</b>	<b>21.0% (46)</b>	<b>15.6% (76)</b>
<b>Agree</b>	<b>39.2% (675)</b>	<b>37.8% (385)</b>	<b>45.2% (99)</b>	<b>39.3% (191)</b>
<b>Disagree</b>	<b>31.5% (543)</b>	<b>33.9% (345)</b>	<b>24.7% (54)</b>	<b>29.6% (144)</b>
<b>Strongly Disagree</b>	<b>13.3% (230)</b>	<b>13.3% (135)</b>	<b>9.1% (20)</b>	<b>15.5% (75)</b>
<b>Strongly Agree &amp; Agree</b>	<b>55.2% (950)</b>	<b>52.8% (538)</b>	<b>66.2% (145)</b>	<b>54.9% (267)</b>
<b>Strongly Disagree &amp; Disagree</b>	<b>44.8% (773)</b>	<b>47.2% (480)</b>	<b>33.8% (74)</b>	<b>45.1% (219)</b>

66.2% of the students who had a negative change in awareness had agreed that they spend more than an average of 3 hours on the screen per day, while as 54.9% who had a positive response and had agreed.

**Question: Too much screen is related to stress and obesity.**

	All Responses	No Change	Negative Responses	Positive Responses
<b>Total</b>	<b>1723</b>	<b>1018</b>	<b>219</b>	<b>486</b>
<b>Strongly Agree</b>	<b>21.6% (373)</b>	<b>20.1% (205)</b>	<b>17.4% (38)</b>	<b>26.7% (130)</b>
<b>Agree</b>	<b>41.6% (716)</b>	<b>41.9% (427)</b>	<b>30.6% (67)</b>	<b>45.7% (222)</b>
<b>Disagree</b>	<b>25.7% (442)</b>	<b>26.3% (268)</b>	<b>35.2% (77)</b>	<b>20.0% (97)</b>
<b>Strongly Disagree</b>	<b>11.1% (192)</b>	<b>11.6% (118)</b>	<b>16.9% (37)</b>	<b>7.6% (37)</b>
<b>Strongly Agree &amp; Agree</b>	<b>63.2% (1089)</b>	<b>62.0% (632)</b>	<b>48% (105)</b>	<b>72.4% (452)</b>
<b>Strongly Disagree and disagree</b>	<b>36.8% (634)</b>	<b>37.9% (386)</b>	<b>52.1% (114)</b>	<b>27.6% (134)</b>

72.4% of the students with positive awareness think that too much screen is related to stress and obesity, while as only 48.0% of the students with a negative awareness change think that it is related to stress and obesity. So, they think that the problem related to screen addiction is less, and hence they have a negative response.

**Question: Too much screen is related to poor academic results.**

	All Responses	No Change	Negative Responses	Positive Responses
<b>Total</b>	<b>1723</b>	<b>1018</b>	<b>219</b>	<b>486</b>
<b>Strongly Agree</b>	<b>18.0% (310)</b>	<b>16.4% (167)</b>	<b>14.6% (32)</b>	<b>22.8% (111)</b>
<b>Agree</b>	<b>39.7% (684)</b>	<b>39.6% (403)</b>	<b>27.4% (60)</b>	<b>45.5% (221)</b>
<b>Disagree</b>	<b>29.3% (505)</b>	<b>30.7% (313)</b>	<b>33.8% (74)</b>	<b>24.3% (118)</b>
<b>Strongly Disagree</b>	<b>13.0% (224)</b>	<b>13.3% (135)</b>	<b>24.2% (53)</b>	<b>7.4% (36)</b>
<b>Strongly Agree &amp; Agree</b>	<b>57.7% (994)</b>	<b>56.0% (570)</b>	<b>42.0% (92)</b>	<b>68.3% (332)</b>
<b>Strongly Disagree and Disagree</b>	<b>42.3% (729)</b>	<b>44.0% (448)</b>	<b>58.0% (127)</b>	<b>31.7% (154)</b>

68.3% of the students with positive awareness think that too much screen is related to poor academic results, while as only 42.0% of the students with a negative awareness change think that it is related to poor academic results. Therefore, the students with negative awareness are probably not as effected in their grades by screen addiction.

**Question: Too much screen is related to poor relationships with family and/or friends.**

	All Responses	No Change	Negative Responses	Positive Responses
<b>Total</b>	<b>1723</b>	<b>1018</b>	<b>219</b>	<b>486</b>
<b>Strongly Agree</b>	<b>9.2% (158)</b>	<b>8.7% (89)</b>	<b>5.9% (13)</b>	<b>11.5% (56)</b>
<b>Agree</b>	<b>33.1% (571)</b>	<b>33.1% (337)</b>	<b>21.9% (48)</b>	<b>38.3% (186)</b>
<b>Disagree</b>	<b>39.7% (684)</b>	<b>39.1% (398)</b>	<b>42.5% (93)</b>	<b>39.7% (193)</b>
<b>Strongly Disagree</b>	<b>18.0% (310)</b>	<b>19.1% (194)</b>	<b>29.7% (65)</b>	<b>10.5% (51)</b>
<b>Strongly Agree &amp; Agree</b>	<b>42.3% (729)</b>	<b>41.8% (426)</b>	<b>27.8% (61)</b>	<b>49.8% (242)</b>
<b>Strongly Disagree and disagree</b>	<b>57.7% (994)</b>	<b>58.2% (592)</b>	<b>72.2% (158)</b>	<b>50.2% (244)</b>

49.8% of the students with positive awareness think that too much screen is related to poor relationships with family and/or friends, while only 27.8% of the students with a negative awareness change think that it is related to this. It is likely that, the students with negative awareness are probably not as effected by screen addiction.

As you can see from these observations, they are agreeing that they spend more time on the screen (66.2% say that they spend more than 3 hours on the screen), but are disagreeing about all the negatives to the screen. Therefore, the students with negative awareness are probably not as effected by screen addiction and since they spend so much time on the screen and don't see a negative effects forming within themselves, they don't think the population in their society could have problems from this either.

## **Conclusion:**

In conclusion, we proved our hypothesis by increasing the awareness in a large portion of the students surveyed. 42.7% of our peers agreed with the statement saying that they would be willing to help educate others. Although this is not a majority, it is a great number to start making a difference in our society. We not just motivated our peers, but also the teachers, principals, and school administrators. The majority of them agreed that we need to begin implementing media education in our curriculum. Now, we need the support of adults and the media to spread media education globally in order to help the future generation. This is the beginning of the awareness change not only for teens, but for every human being.



## ***REFERENCES***

### ***Articles***

**American Academy of Pediatrics, Committee on Communication. Policy Statement-Media Violence. *Pediatrics* 2009; 124:1495-1503**

**American Academy of Pediatrics, Committee on Communication. Policy Statement-Media Education. *Pediatrics* 2010; 126:1-6**

**American Academy of Pediatrics, Committee on Communications.**

**Children, adolescents, and television. *Pediatrics*. 1995;96:786–787**

**American Academy of Pediatrics, Committee on Communications. Sexuality, contraception, and the media. *Pediatrics*. 1995;95:298–300**

**American Academy of Pediatrics, Committee on Communications.**

**Children, adolescents, and advertising. *Pediatrics*. 1995;95:295–297**

**American Academy of Pediatrics, Committee on Communications. Media violence. *Pediatrics*. 1995;95:949–95**

**American Academy of Pediatrics, Committee on Public Education. Media Education. *Pediatrics* 1999;104:341**

**The Future of Children, Princeton-Brookings. Children and Electronic Media. *The Future of Children* Spring 2008, Volume 18, Number 1**

**Roberts DF, Foehr UG, Rideout V. Generation M: media in the lives of 8-18 year-olds. Kaiser Family Foundation. March 2005.**

**Sharif I, Sargent JD. Association between television, movie, and video game exposure and school performance. Pediatrics 2006 Oct;118(4):e1061–e1070. [PubMed: 17015499]**

**Strasburger VC, Wilson BJ, Jordan AB. Children, Adolescents, and the Media**

**Strasburger VC. Adolescents and the Media: Medical and Psychological Impact. Thousand Oaks, CA: Sage; 1995**

**American Academy of Pediatrics, Committee on Communication. Media Violence. Pediatrics 2009; 124:1495-1503**

**American Academy of Pediatrics, Committee on Communication. Media Education. Pediatrics 2010; 126:1-6**

*Websites*

**Television and Children.Kyla Boyse. August 2010. University of Michigan. 1 Feb. 2012 <http://www.med.umich.edu/yourchild/topics/tv.htm>**

**Effect of Visual Media Use on School Performance: A Prospective Study. July 2009. National Institute of Health.17 Feb. 2012 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818002/>**

**Association Between Television, Movie, and Video Game Exposure and School Performance. April 2006. Pediatrics: Official Journal of the American Academy of Pediatrics. 17 Feb. 2012 <<http://pediatrics.aappublications.org/content/118/4/e1061.full.html>>**

**ACKNOWLEDGEMENTS**

**We would like to thank our mentor Dr. Neeti Kohli, for her guidance; Uday Kohli, our peer, for his assistance in various stages of the project; parents, families, and friends for their support; the administrators, staff, principals, and teachers of different schools in Central Oklahoma that participated in the survey; and Mr. Jim Priest for the template we used for our survey.**

**Parents and Family!!**

Dr. Neeti Kohli

Dr. Vivek Kohli

Uday Kohli

Mr. Harish Pai

Mrs. Lalitha Pai

Mrs. Nagalakshmi Parasaram

Mr. P.V. Narayanacharyulu Parasaram

Dr. Sarathi Kalra

Dr. O.P. Kalra

Dr. Vikas Kohli

**Edmond Public Schools**

**Administration**

Dr. David Goin-Superintendent

Mr. Jason Brown- Executive Director, Secondary Education

**Board Members**

Mrs. Lee Ann Kuhlman-Member

Mrs. Kathleen Duncan- Member

**Cimarron Middle School**

Mr. Andy North-Principal

Mrs. Lisa Adams-Assistant Principal

Mr. Wilson-Science

Mr. Presley-Science

**Sequoyah Middle School**

Mr. Jason Galloway- Principal

Mrs. Voskamp- 8<sup>th</sup> Grade Counselor

**Edmond Memorial High School**

Dr. Debbie Bendick-Principal

**Edmond North High School**

Mr. Jason Pittenger-Principal

Mr. Frank-Mathematics

Mrs. Brumback- Mathematics

Mrs. Mowery- Science

Mr. Jones- Counselor

**Edmond Santa Fe High School**

Mr. Earl Kirkpatrick- Principal

**Private Schools**

**Heritage Hall**

Mr. Keith Cassell- Upper School Division Head

**Bishop McGuiness Catholic High School**

Mr. David Morton- Head of School

**Medical Personnel**

Dr. Murali Krishna

Dr. Vimala Sekar

**Other Major Contributors**

Mr. Jim Priest-Executive Director of F.A.T.E.

Other teachers, counselors, and administrative staff of schools