

Dear Representative Fleischmann,

I am writing as a current employee of Hartford Public Schools. I have taught music at one of our community schools for the past five years. My current post was my first appointment after graduating college.

As of today I have been informed of the Raised Bill SB 378. I have reviewed the bill specifically taking note of the increase from 20 credits to 25 credits while maintaining a mandatory one credit in the fine or performing arts and one credit in a humanities elective. My concerns are as follows (as itemized by the Connecticut Art Education Association):

The proposed increases of 2 credits in Humanities requirements and 4 credits in

STEM – the latter almost doubling the current requirements (!) – will reduce students' ability to personalize their high school curriculum, by:

- *Reducing the number of elective courses students can select;*
- *Dramatically impacting district staffing, forcing districts to almost double staffing in STEM subjects that are chronic teacher shortage areas, at the inevitable cost of reduced staffing and course offerings in the arts and other core content areas; and*
- *Squeezing students' schedules so that they cannot maintain participation in arts classes for four years, as many students currently do.*

Increasing STEM requirements at the cost of study in the arts runs contrary to research on the background required for success in the fields of science and technology. On the contrary, research by creativity expert Robert Root-Bernstein among others reveals that the most distinguished scientists – including more than 90% of Nobel prize winners (!) – are also artists... and not just dilettante artists, but often highly accomplished, exhibiting and performing artists.

There is an overwhelming amount of data, both anecdotal and scientific, that supports the importance of a well-integrated Arts education. From neuroscience to anthropology, the Arts play a vital role in the lives of us all. Jose Antonio Abreu, founder of the *El Sistema* music movement in Venezuela, perfectly captured the spirit of the Arts' purpose when he said,

*To sing and play together means to **intimately coexist toward perfection and excellence**, following a strict **discipline** of **organization** and **coordination** in order to seek the harmonic interdependence of voices and instruments. That's how they **build a spirit of solidarity and fraternity among them**, aesthetic values related to the music in all its sense.*

Jose Abreu's protégé was currently featured at the Superbowl during the halftime show. Renowned conductor Gustavo Dudamel, a graduate of *El Sistema*, lead a cohort of string playing children onto the Superbowl stage while Coldplay, Beyonce, and Bruno Mars pandered to the crowd. The Arts are there, forever in the underlying fabric of society.

Since 2012 S.T.E.M to S.T.E.A.M (Science.Technology.Engineering.Arts.Mathematics) schools have been making their way into the news although the movement itself began in 2006 with the heavily researched ingenuity of Georgette Yakman. Since then, the educational validity of S.T.E.A.M schools has been recognized internationally. In 2011 the Korean Ministry of Education approved STEAM as an integral part of K-12 education. Korea has consistently ranked within the top five international rankings in education whereas the United States has ranked 31st in mathematics, 23rd in science, and 17th in reading and the numbers continue to decrease.

Encouraging innovative creativity through all academic mediums, thereby recognizing the Arts as academics, is undeniably essential to education, especially within urban school districts. We know that urban school districts habitually see the most extreme budget cuts and removal of resources from children who are *school-dependent*. These children rely on schools for their most basic needs of food, shelter, safety, and value to the achievement of their highest creative academic potential.

Please consider the amendments as put forth by the Connecticut Art Education Association. Furthermore, consider the benefits of developing our STEM schools into STEAM schools. In a nation that is meeting turbulent change we need to act with urgency and create resilient, creative, solution-oriented thinkers.

Thank you for your consideration,

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