



Duplex Printing

PA-TSA Green Initiative

Prepared by the PA-TSA Environmental Committee

Goal

- To reduce the negative impact that the Technology Student Association makes on the overall environment.

Explanation

While preparing for the 2008 Pennsylvania Technology Student Association State Conference, I was distraught to see that one of my competitive events that my brother and I were working on required a binder to be printed single-sided. "*Nothing should be included on the back side of any pages within the notebook,*" the rules clearly stated in italics. What bothered me even more was the fact that this clause was implemented in the rules of Environmental Challenge. I felt as if TSA was testing me to see whether I was more devoted to the environment or doing well in the event. I moved on to high school, where I found out that every event in the new rulebook had the rule worded a little differently, stating that the binders must be made up of "single-sided, 8½" × 11" pages." The rule has no value, and there are few insignificant inconveniences it prevents. It is time that we allow duplex printing for binder events because it is easily implementable, it would significantly reduce the amount of paper used for TSA, and even a small-scale reduction of paper would be very beneficial for our planet.

Reducing our use of resources, particularly paper, is perhaps the best deed we can do for our environment. A lot of energy is required to manufacture paper. Most of our energy comes from oil, which releases carbon into the atmosphere when burned. Over ninety percent of scientists agree that this carbon is causing the greenhouse effect and global warming, which are potentially globally devastating environmental problems.

Trees, a core part of our ecosystem, are cut down in huge amounts every day so that wood-based paper can be manufactured. The production of wood-based paper causes deforestation, which in turn destroys habitats and eliminates an oxygen-producing barrier against global warming.

According to the membership report by Pennsylvania State Vice-President Caitlyn Riehl at the 2009 Pennsylvania TSA State Conference Business Meeting, there are seventy-seven active high school chapters in PA-TSA. Let's say that all of these chapters submit two entries for the event Manufacturing Prototype. My team's submission for the event in 2009 had documentation that took up nineteen pages. If all of these teams submit nineteen single-sided pages, the amount of paper used for each chapter's submissions for Manufacturing Prototype would total 2,926 sheets. If all of the entries are submitted double-sided, the total amount of paper would come to 1,540 sheets, almost half of the previous amount. The total amount of paper saved by submitting the binders with double-sided pages comes to **1,386 sheets**. Once these numbers are taken into consideration, notice that I only calculated for **one event at one level at one state conference**. When one considers regional conferences and conferences in other states, the environmental footprint of this process becomes alarming.

In the spring of 2009, the Modern Language Association (MLA) came out with a new handbook stating that it is up to the instructor on whether or not research papers can be printed double-sided. TSA compiles rules for all events, so TSA can essentially be considered the



instructor in this situation. Considering the above, abolishing single-sided printing would not be against universal standards.

Implementation

The way to address this issue is simple. With the elimination of the single-sided printing rule, simple instructions on how to print double-sided should be released by the CRC (see “Simple Instructions on How to Print Double-Sided”).

High School

As the revised competitive event guide is finalized in 2010, the TSA Competitions Regulations Committee should ensure that the single-sided printing restriction is eliminated from all official event rules.

Middle School

Although the new middle school rulebook has been finalized in 2009, it's not too late for the TSA CRC to come out with an announcement this summer or autumn stating that students should ignore the single-sided printing rule in their binder competitive events. This option is preferable to waiting until the next rule change, which will occur in 2011. Innumerable amounts of paper are used for TSA competitions every season and acting as late as 2011 will continue excessive wastefulness in 2010 and 2011.

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