

WHITEPAPER

REDUCING COSTS, INCREASING VALUE IN EDUCATION MARKET

SCHOOLS INSTALL RISO COMCOLOR FOR PRODUCTIVITY AND COST SAVINGS

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Table of Contents

The Importance of Printing in K-12 Schools2
Enhancing Educational Materials with Color Digital Printing
Adding Value with Short Run Printing and Personalization
Saving Costs and Increasing Professionalism with Digital Finishing
Increased Volume, Speed, Quality, and Cost Savings5
The RISO ComColor X1 71506
The RISO ComColor GD 7330
The Bottom Line
List of Tables and Figures
Figure 1: Personalization of Educational Print Materials
Figure 2: Student in the Graphic Design & Visual Communications Program at Somerville High School (MA)5
Figure 3: The RISO ComColor X1 71506
Table 1: RISO ComColor X1 7150 Specifications
Figure 4: RISO's ComColor GD 7330
Table 2: RISO ComColor GD 7330 Specifications

The Importance of Printing in K-12 Schools

According to the National Center for Education Statistics, there are over 129,000 elementary and secondary schools (both public and private) in the United States. Whether funded publicly or privately, each of these institutions strives to educate the nearly 60 million students enrolled.¹ Print still plays a vital role in the education industry's efforts to better serve these students. K-12 schools use printing to support key operational areas such as learning and teaching materials, extra-curricular activities, fundraising and promotional activities, admissions and human resources services, and alumni and community relations activities.

Keypoint Intelligence – InfoTrends' most recent survey of the education industry² found that K-12 schools produce a variety of applications. Specifically, the study found that 50% to 60% of printed work is direct instructional or teaching materials, such as student workbooks, writing journals, practice sheets, and tests; while about 15% to 30% of print jobs are educational support materials, such as diplomas, certificates, report cards, and newsletters. Other sources reveal that the balance of work produced for the schools by the in-house printing facilities are stationery-type products, such as business cards, letterhead, envelopes, and notepads. Inhouse bindery services are simple and include plastic coil, tape binding, booklet making, drilling, folding, tabs, and cutting.

Despite the rise of digital learning materials, print remains important. The massive shift from print to digital that many predicted has been slow to materialize. According to research by Simba Information, print accounts for nearly 70% of pre-K-12 instructional material sales in the United States. Here are some key factors that are keeping print in the classroom:

- Teachers and students often prefer print.
- Print is frequently more affordable.
- School districts may lack the Internet bandwidth to keep students online.
- Educators are pursuing a hybrid approach that uses electronic and printed content.

Furthermore, technological advancements with digital inkjet printing provide an opportunity to add value and reduce production costs for schools. The RISO ComColor inkjet digital production devices enable the schools to affordably add value to printed products using color, personalization, and in-line bindery capabilities.

Source: U.S. Department of Education, National Center for Education Statistics, Feb 2017; includes 1.2 million public prekindergarten and 5.2 million private school students

² Source: In Search of Business Opportunities: Finding the Right Prospects, InfoTrends 2017

Enhancing Educational Materials with Color Digital Printing

Color printed materials offer many benefits in teaching students—they better capture attention and deliver an enhanced learning experience. Research has consistently shown that color increases memory retention better than verbal or textual cues alone. According to The Institute for Color Research (now called Color Matters), color can improve readership by 40%, increase learning retention by as much as 78%, and boost comprehension by up to 73%. Other studies have confirmed that color is easier to remember than black & white; most color survey participants reported that they could recall color images more easily than black & white images.

The in-house printing department at the Andover Public School (APS) District in Massachusetts invested in the RISO ComColor X1 7150 to help meet teacher demand for color materials. Prior to the installation at APS, printing color materials was costly and time-consuming and the options were often limited. The RISO device has enabled the APS District to expand its use of color in customized classroom workbooks, student handbooks, college prep handbooks, final exams, and other in-house printed materials. According to Betty Ann Zackular, Administrative Assistant to the Assistant Superintendent for Finance and Administration, "The in-house facility has invested in technologies over time that brought better quality, lower costs, and improved turnaround for these customized classroom materials." She elaborates, "The ComColor provided cost savings to the district by bringing previously outsourced jobs into the in-house operation." Charts, graphs, photos, and more can now be produced quickly on the full-color inkjet printer, providing high-quality educational resources for students and teachers. Additionally, applications such as envelopes, labels, programs/booklets, letterhead, and short run business cards can be printed in-house as well. The print shop was ultimately able to add new printed applications to its offerings, including colored posters, menus, and direct mail. This made it possible to deliver enhanced value to internal and external customers.

Adding Value with Short Run Printing and Personalization

One of the greatest challenges of in-house printing operations serving K-12 school districts is the high volume of teacher requests for customized course materials at the start of the school year. According to InfoTrends' research³, nearly 60% of education providers' printed materials are personalized to some degree. This means that education in-plants must invest in printing and finishing technologies to enable the fast turnaround of short-run work. The RISO ComColor enabled the APS print shop to handle more jobs, diversify its media options, and customize its offerings to meet district and classroom needs.

³ In Search of Business Opportunities: Finding the Right Prospects, InfoTrends 2017

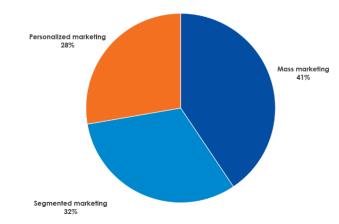


Figure 1: Personalization of Educational Print Materials

N = 50 Enterprise Education Respondents Source: In Search of Business Opportunities: Finding the Right Prospects, InfoTrends 2017

Saving Costs and Increasing Professionalism with Digital **Finishing**

Supporting approximately 3,000 students from pre-school through high school, the in-house print operation for the Windham School District in Windham, New Hampshire has requirements that are somewhat different. Specifically, the district offers two distinct books that are printed annually and on-demand throughout the school year:

- A Program of Studies Handbook: Windham High School (WHS) provides all incoming students with an extensive Program of Studies handbook that helps prepare them for the high school experience. This 95-page booklet outlines expectations for student learning, highlights resources and tools available to assist students and parents, provides a full course listing for each year, and lists requirements for graduation.
- Human Resources New Hire Handbooks: The district provides a mentoring program for newly-hired staff members that includes a full-color printed handbook.

According to the students and staff in the Windham School district, the quality of the books has improved since WHS began printing them on the RISO ComColor X1 7150 with a highcapacity feeder and perfect binder. Because of the cost savings from insourcing these books, WHS can now print the cover page in full color on cardstock while using a mix of black & white and color on the inside pages. When this task was being outsourced, it was too expensive to include color pages in the printed books. The school was also limited in its budget to include upgrades like perfect binding, which is now accomplished in-line on the RISO ComColor.

Immediately following the successful transition of WHS's Program of Studies books, other departments within the district considered using the RISO ComColor to print new projects.

Kerry Grenier, the Human Resources Coordinator for the district, saw the results that the device was delivering for WHS and decided to create a similar product for the Windham School District's Human Resources department. "As part of our new hire and mentoring programs, we created an employee handbook to help us look more professional," Grenier states. "When staff members receive a quality printed handbook, they look to it first for information. This has cut down on the number of questions we receive regarding employee benefits and policies."

Increased Volume, Speed, Quality, and Cost Savings

Using the RISO ComColor GD 7330 color inkjet device, Somerville High School students (Somerville, MA) can create numerous projects for their school as well as external customers such as the City of Somerville and local non-profit organizations. Print applications printed on the ComColor include booklets, newsletters, personalized postcards, flyers, and business cards. Whether printing a quantity of one or over 25,000 copies, the students can be confident in the quality output generated by their RISO devices. Somerville High School's Graphic Design and Visual Communications program director Chuck Gerlach notes, "The high-capacity feeder means that we can start printing at the end of a school day and come back to a finished project the next morning."





Thanks to the addition of the ComColor GD, the school has experienced an increase in production volume and quality levels while also reducing costs. In addition, the affordability of the inkjet consumables benefits the students directly. According to Mr. Gerlach, "We're

experiencing at least 15% extra in savings by producing jobs on the ComColor GD instead of other devices in-house. The money saved translates directly into bettering the students' learning environment, and we're ultimately saving the school money overall."

Furthermore, customers of the Somerville High School print operation are benefitting from the versatility, color quality, and fast speeds of the new ComColor GD. While every job has its own set of production requirements, the students are learning how to quote print jobs and determine the best device to print each job. Mr. Gerlach states, "Our customers prefer the RISO nine times out of ten because of its lower price, quality, and fast turnaround."

The RISO ComColor X1 7150

The RISO ComColor X1 7150 is a full-color sheet-fed inkjet printer featuring print speeds of up to 120 ppm at 600x600 dpi and a maximum duty cycle of 500,000 impressions per month. The printer provides high-speed production at a very low cost using newly-developed ink technology that reduces ink transparency and improves black ink density. The ComColor reduces power consumption with an automatic power shut-off, is ENERYG STAR® Certified, and does not require a dedicated 220V power circuit to run. It can operate on a standard 110V outlet and is small enough to fit just about anywhere.



Figure 3: The RISO ComColor X1 7150

Table 1: RISO ComColor X1 7150 Specifications

Speed (Letter/A4)	120 ppm color/120 ppm black
Monthly Volume Max	500,000 impressions
Colors	Process CMYK
Inks	Oil-based pigment
Maximum Sheet Size	13-3/8" x 21-5/8"
Maximum Imaging Area	12-3/8" x 21-9/16"
Media Weight Range	12-lb bond to 110-lb index

The RISO ComColor GD 7330

The RISO ComColor GD 7330 is a full-color sheet-fed inkjet device featuring print speeds of up to 130 ppm at 600x600 dpi and a maximum duty cycle of 500,000 impressions per month. The printer is engineered for high-production environments, providing high-speed color printing at a very low cost using newly-developed ink technology that reduces transparency and improves black ink density. It also leverages a fifth color (gray ink) to provide denser blacks and improved color reproduction and stability. Mr. Gerlach of Somerville High School states, "Our customers love the color quality that the fifth gray unit provides; it gives our projects an extra pop of color."

Figure 4: RISO's ComColor GD 7330



Table 2: RISO ComColor GD 7330 Specifications

Speed (Letter/A4)	130 ppm color/130 ppm black
Monthly Volume Max	500,000 impressions
Colors	Process CMYK
Inks	Oil-based pigment (Cyan, Magenta, Yellow, Black, Gray)
Maximum Sheet Size	13-3/8" x 21-5/8"
Maximum Imaging Area	12-3/8" x 21-19/32"
Media Weight Range	12-lb bond to 110-lb index

The Bottom Line

By investing in RISO's ComColor inkjet products, Andover Public Schools, Windham Public Schools and Somerville High school have created a better learning environment that benefits teachers, faculty, students, and even some local not-for-profit organizations. As is the case for most educational institutions, printed documents remain a valuable tool for students and teachers alike. Thanks to the cost-effective addition of color with the RISO ComColor devices, these schools are further enhancing the value of learning materials, creating a repertoire of professionalism, and providing quality print products to the community, all while saving time and money.



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