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From: Andrew M. Strickland, Technical Writer *AMS*  
Subject: Proposal for Acquiring New Printer  
Date: 24 November 2019

This is the proposal I promised to write, *Proposal for Acquiring New Printer*. I investigated three options for replacing our current multi-function printer (MFP). Those options are based on criteria presented by users. I have developed a side-by-side comparison of these three options using those criteria.

I recommend AEI purchase the Xerox VersaLink C505x to replace the current printer. This recommendation is discussed in the Conclusion section of the proposal on page 7. Once our office manager calls to execute the purchase, local vendors guarantee delivery within one week. The Schedule and Implementation section can be found on page 4 of the proposal. The total cost of ownership of the Xerox VersaLink C505x is \$4,739. This information is found in the Comparison of Options table on page 6, within the Options for Action section of the proposal.

Please call me at 240-285-8078 if you have any questions.

American English Institute  
15 West Patrick Street, Frederick, MD 21701

**Proposal for Acquiring New Printer**  
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24 November 2019

## **Executive Summary**

Our school, American English Institute (AEI), needs a new multi-function printer (MFP).

Maintenance costs are increasing, and workflow is being hindered.

I recommend AEI purchase the Xerox VersaLink C505x to replace their current printer.

In virtually every category, the Xerox printer is the best of the three options. The Xerox printer's duty cycle is also the best of the three. The included service warranty is the same for all three.

Concerning price, Brother is the lowest, followed by Xerox, with Canon the highest. Regarding the cost of add-on service, again Brother is the lowest, followed closely by Xerox, with Canon the highest.

Our office manager will call and order the new machine. Each manufacturer has local vendors that guarantee delivery within one week and free initial services to ensure a seamless transition.

The total budget for this purchase is \$5,000 for total cost of ownership over a 5-year period.

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**The Problem**

Our school, American English Institute (AEI), needs a new multi-function printer (MFP). Our school's current printer is unreliable. Maintenance visits and costs are increasing. Our teachers' and staff's quality of work is decreasing. Their workflow is being hindered.

**Background Information**

Our school has 12 levels of courses for our intensive English program, each on a monthly cycle. Each class averages 15 students. We have a semi-intensive evening English program. That program is much smaller. We also have tutors and tutees of a variety of languages. We have a total of 7 office staff. Everyday, on average, 262 people rely on one printer.

AEI office manager Ryan Smith has shared some information on our current printer. It was purchased over six years ago. It had an original 1-year limited manufacturer warranty. After that initial warranty expired, an extended 3-year warranty was purchased. Since then, we have renewed a maintenance contract with a local servicer, and "repairs for our current printer have cost \$1,549.40" according to AEI accountant Melissa Harris.

**Recommendation**

I recommend AEI purchase the Xerox VersaLink C505x to replace their current printer. In virtually every category, the Xerox printer is the best of the three options. The Xerox printer's duty cycle is also the best of the three. Brother is less expensive than Xerox. However, considering the superiority of the Xerox related to the criteria provided by users, the price difference should be considered negligible.

## Research Methods and Evidence

The specifications of our current printer are as follows:

Printer type	Laser
Color or Monochrome (b&w)	Monochrome
MFP features	Printer, copier, scanner, fax, email
Automatic document feeder	Yes
Automatic two-sided printing (duplexing)	Yes
Internal memory	32 MB RAM
Capacity	250 sheets in main tray
Print speed	20 pages per minute (ppm)
Print quality	600x600 dots per inch (dpi)
Duty cycle (max. pages per month)	10,000 pages
Copy speed	20 ppm
USB port	Yes
Connectivity	Ethernet & WiFi network capable

(Ricoh, p.3)

The three brands chosen for final consideration to replace our current printer were chosen based on the ConsumerAffairs’s list of top-rated printer brands. Canon, Xerox, and Brother were at the top of this list (“Best Printer Companies”).

### Users' Features

The users reported that all the MFP features of the current printer are used (printer, copier, scanner, fax, email). In addition, they also frequently use the document feeder, duplexing, usb port, and wifi to connect to the printer. Features they said would make their jobs easier or more effective are faster **print and copy speed**, and higher **capacity**. According to them, features that would be nice to have are **color** and higher **print quality** (Anders et al.).

The **Canon imageRUNNER ADVANCE C3525i** offers the following:

Print speed	25 ppm
Copy speed	25 ppm
Capacity	250 in main tray
Color or Monochrome	color
Print quality	1200x1200 dpi

("imageRUNNER ADVANCE C3535i")

The **Xerox VersaLink C505x** offers the following:

Print speed	45 ppm
Copy speed	45 ppm
Capacity	550 in main tray
Color or Monochrome	color
Print quality	1200x2400 dpi

("VersaLink C505 Specifications")

The **Brother MFC-L9570CDW** offers the following:

Print speed	33 ppm
Copy speed	33 ppm
Capacity	250 in main tray
Color or Monochrome	color
Print quality	2400x600 dpi

("MFCL9570CDW")

### Workload

Workload is described as “duty cycle” and expressed as pages per month. This is basically a measure of how robust a printer is and the workload it can be expected to handle over an extended period (“Printer Buying Guide: Printer Specs You Need to Know”). The Canon imageRUNNER ADVANCE C3525i has a duty cycle of 95,000 pages per month, the Xerox VersaLink C505x 120,000 pages per month, and the Brother MFC-L9570CDW 80,000 pages per month.

### Included Service

All 3 options include a manufacturer’s 1-year limited warranty.

### Price + Add-on Service = Total Projected Cost of Ownership Over 5 years

COO Myra Rainey has declared that we have “a total budget of \$5,000 for this purchase.” That figure is to cover the total cost of ownership projected over 5 years of ownership. Any option that is above the \$5,000 limit will be eliminated from consideration.

### **Schedule and Implementation**

Each manufacturer coordinates with local vendors guaranteeing free delivery within one week of purchase and free removal of our old printer. Our office manager will be the point of contact to execute the purchase and schedule delivery. The vendor will conduct an initial training with our office manager on the major functions of the printer. They will also transfer settings from our old printer to ensure a seamless migration.



## **Budget**

COO Myra Rainey has declared that we have “a total budget of \$5,000 for this purchase.” That figure is to cover the total cost of ownership projected over 5 years of ownership. Any option that is above the \$5,000 limit will be eliminated from consideration.

## **Options for Action**

### Decision-Making Process

All the models compared below have the functionality our users expect: printer, copier, scanner, fax, email, document feeder, duplexing, usb port, and wifi connectivity. Therefore, the comparisons left to be made involve the features that would make the users’ jobs easier or more effective (faster print speed, faster copy speed, and higher capacity), as well as features that would be “nice to have” (color and higher print quality). We will call those “Users’ features.” We also must consider how robust and durable the printer is. We will call this section “Workload.” Next, we must check the original manufacturer’s warranty (“Included Service”). Then, we compare initial purchase price (“Price”) and the price of a two-year extended warranty (“Add-on Service”). Finally, the “Total Projected Cost of Ownership Over 5 Years” section requires that we double the price of the 2-year extended warranty and add it to the initial purchase price.

### Comparison of Options

	<b>Canon imageRUNNER ADVANCE C3525i</b>	<b>Xerox VersaLink C505x</b>	<b>Brother MFC-L9570CDW</b>	<b>Current printer</b>
<b>Users' Features</b>				
Print speed	25 ppm	45 ppm	33 ppm	20 ppm
Copy speed	25 ppm	45 ppm	33 ppm	20 ppm
Capacity	250 in main tray	550 in main tray	250 in main tray	250 in main tray
Color or Monochrome	color	color	color	monochrome
Print quality	1200x1200 dpi	1200x2400 dpi	2400x600 dpi	600x600 dpi
<b>Workload</b>				
Duty cycle	95,000 pages/mo.	120,000 pages/mo.	80,000 pages/mo.	10,000 pages/mo.
<b>Included Service</b>				
Warranty	1-year limited	1-year limited	1-year limited	-
<b>Price</b>	\$3,195	\$2,489	\$1,899	-
<b>Add-on Service</b>				-
Extended Warranty (2yr)	\$1,249 (x2)	\$1,125 (x2)	\$1,059 (x2)	-
<b>Total Projected Cost of Ownership Over 5 years</b>	\$5,693	\$4,739	\$4,017	-
<i>Sources:</i>	("imageRUNNER ADVANCE C3535i")	("VersaLink C505 Specifications")	("MFCL9570CDW")	(Ricoh, p.3)

Concerning users' features, the Xerox printer is the best of the three options. In the workload section, the Xerox's duty cycle is also the best. The included service warranty is the same for all. Brother has the lowest price, followed by Xerox, with Canon the highest. The same pattern follows regarding the cost of add-on service. These figures, being only for two years, must be doubled to calculate projected cost of ownership over 5 years. Finally, the total projected cost of ownership shows again that Brother is the lowest, followed by Xerox, with Canon the highest. In fact, Canon's projected cost exceeds the \$5,000 budget allowed for this purchase.

## **Conclusion**

I recommend AEI purchase the Xerox VersaLink C505x to replace their current printer. Between Xerox and Brother, the only category where Brother does better than Xerox is cost. It is helpful to compare them both to the current printer, as the experience with any new printer will ultimately be weighed against what the current experience has been. The only feature that would remain the same if Brother is chosen would be capacity. However, considering the Xerox's capacity would reduce the frequency of paper reload by more than half, and higher capacity was categorized by users as a feature that would make their jobs easier and more effective (not merely a "nice to have"), the higher capacity is worth the additional \$722 for the Xerox. Consequently, I recommend AEI purchase the Xerox VersaLink C505x to replace their current printer. This new Xerox will increase productivity. It will renew our teachers' confidence and effectiveness. Morale will improve. Teacher turnover will decrease. Students will have better and more varied resources available. Students will have more success, which will increase student enrollment and revenue.

## Works Cited

Anders, Sue, et al. Faculty & Staff, American English Institute. Frederick, Maryland. Email (October 21-25, 2019).

In this email interview, Anders and the rest of AEI's faculty and staff share their list of printer features they use, features that would make their jobs easier and more effective, and features that would be nice to have. Per the users, all the following features are frequently used: printer, copier, scanner, fax, email, document feeder, duplexing, usb port, and wifi to connect to the printer. Features they said would make their jobs easier or more effective are faster print and copy speed, and higher capacity. Features that would be nice to have are color and higher print quality. The faculty and staff have a clear stake in this decision because they are the ones who depend on the machine every day to do their jobs. This information is critical because it determines much of the criteria involved in choosing which printer to purchase for the users.

“Best Printer Companies.” *Compare the Best Printers*, ConsumerAffairs, 5 January 2018,

<https://www.consumeraffairs.com/computers/printers/#best-rated>. Accessed 3 November 2019.

Harris, Melissa. Accountant, American English Institute. Frederick, Maryland. Email (October 7, 2019).

In this email interview, Harris shares the financial consequences of maintaining AEI's current printer. Her numbers show that since April began, maintenance and repairs for our current printer have cost our school \$1,549.40. Melissa's role as AEI's accountant positions her well to speak of how maintaining the current printer has impacted AEI financially. Her insight here is valuable because it speaks to the need to act lest AEI continue to lose even more money with patchwork maintenance.

“imageRUNNER ADVANCE C3535i.” *Multifunction Copiers / imageRUNNER ADVANCE*

*C3525i*, Canon U.S.A., 2019,

<https://www.usa.canon.com/internet/portal/us/home/products/details/copiers-mfps-fax-machines/multifunction-copiers/imagerunner-advance-c3525i>. Accessed 3 November 2019.

“MFCL9570CDW.” *MFC-L9570CDW / Workgroup Color Laser All-in-One Printer*, Brother,

<https://www.brother-usa.com/products/mfcl9570cdw#specification>. Accessed 3

November 2019.

“Printer Buying Guide: Printer Specs You Need to Know.” PCWorld,

[https://www.pcworld.com/article/192491/printer\\_specs\\_you\\_need\\_to\\_know.html](https://www.pcworld.com/article/192491/printer_specs_you_need_to_know.html).

Accessed 24 November 2019.

Rainey, Myra. COO, American English Institute. Frederick, Maryland. Email. (October 29,

2019).

In this email interview, Rainey declares AEI’s total budget for a new MFP. According to Rainey’s analysis of the relevant financial data, she declares the budget for this purchase to be \$5,000. As COO, Rainey has the authority to commit funds. Therefore, she is the one who sets the budget for this purchase. This information is critical because it determines our purchasing power and what we can or cannot afford to purchase.

Ricoh. *User Manual*. 2012.

In this user manual, Ricoh presents the specifications of the printer that AEI is currently using. Print speed is 20 ppm. Capacity is 250 in the main tray. Print quality is 600x600 dpi. Duty cycle is 10,000 pages/month. Ricoh is the best source for this information because they are the manufacturer of the printer. This information is valuable because knowing what we already have will help us to understand to what degree our choice of printer will be an improvement over the existing printer.

Smith, Ryan. Office Manager, American English Institute. Frederick, Maryland. Email (October

7, 2019).

In this email interview, Smith presents some background on the current printer. It was purchased over six years ago. It had an original 1-year limited manufacturer warranty. After that expired, an extended 3-year warranty was purchased. Since then, AEI has continually renewed a maintenance contract with a local service provider. It has a cap on covered maintenance/repair visits. This year, AEI passed that cap in March and has needed to call on them several times since then. Smith is well-positioned to inform on this issue because as the office manager he coordinates all the service calls and fields informal complaints when the printer is down. Having a reliable printer would certainly

reduce his stress and workload. This information is valuable because it provides context around the need for this printer purchase.

“VersaLink C505 Specifications.” *Specifications for VersaLink C505 Color MFP*, Xerox

Corporation, 2019, <https://www.office.xerox.com/en-us/multifunction-printers/versalink-c505/specifications>. Accessed 3 November 2019.