

EDGE INTERACTIVE
WHITE PAPER

AUGUST 2004

ezFAQ™ for Higher Education

Reduce e-mail inquiries and
improve student service.

Table of Contents

Introduction	3
Benefits	3
Features	4
Knowledge base	4
Student interface customization	4
ezFAQ™ administrative tools	5
ezFAQ™ artificial intelligence component	6
Handling e-mail	7
Handling requests for other material	7
Reports	8
Integration	10
Hosting / technology options	11
Results	11
EDge Interactive	12

Introduction

As the higher education landscape becomes more and more competitive, technologies are developed that make prospective students more discerning than ever. Data* shows that over 95% of students use e-mail and the Internet as a primary method of contact. Today's challenge for schools is addressing the sheer volume of e-mail inquiries from these prospective students, in a timely manner, with immediate and relevant responses, in a cost-efficient way.

The ezFAQ™ system was developed to help schools meet these challenges. Prospective students are able to use its natural query-based system to search for immediate answers to their questions. As a result, the volume of e-mail inquiries to school staff will reduce dramatically: 93 to 99% and above. This will free resources for other value-added activities, lowering overall costs.

ezFAQ™ is a comprehensive solution, employing artificial intelligence to adjust the relevance of answers based on usage patterns to maximize its accuracy. The system can stand alone, or be part of the Web-based prospect management system ezRecruit™.

Benefits

The key benefits of the ezFAQ™ system are:

✓ **Enhanced Web experience for students**

Students who are on your Web sites will be able to ask a question using natural language, and immediately receive relevant responses from the system. This addresses the students' questions in real-time, and results in a higher level of satisfaction with the experience on your Web site.

✓ **Immediate reduction of free-typed e-mail inquiries**

With the ezFAQ™ system, cost savings are realized immediately upon deployment. A standard ezFAQ™ implementation typically takes one week, after which the volume of e-mail inquiries drops dramatically, allowing your staff to spend more time focusing on value-added activities.

✓ **Empowered staff members**

The ezFAQ™ knowledge base can be searched by staff members as well, allowing them to quickly retrieve answers when answering students' questions. Staff members will be able to work as a more efficient and cohesive team, providing clear and consistent responses to students.

✓ **An intelligent system**

Utilizing EDge's proprietary artificial intelligence (A.I.) methodology, ezFAQ™ searches through the knowledge base, retrieving and ranking relevant answers to a student's question. As the student picks and chooses from the displayed list of answers, the system tracks this behaviour and revises its ranking system.

* Acumen Research

✓ Flexibility and scalability

ezFAQ™ can be made available on your main school Web site, on a portal Web site or on a faculty Web site. It can be used as part of ezRecruit™ or in a stand-alone configuration. The ezFAQ™ system can also be integrated seamlessly with your school's student information system (SIS), thereby providing students with personalized answers about their application status in real-time.

ezFAQ™ scales easily and can be address multiple audiences including prospective students, current students, alumni, counsellors, parents, staff and faculty.

Features

The ezFAQ™ system has many features that make it the best solution for your school. The following is a brief overview of these features:

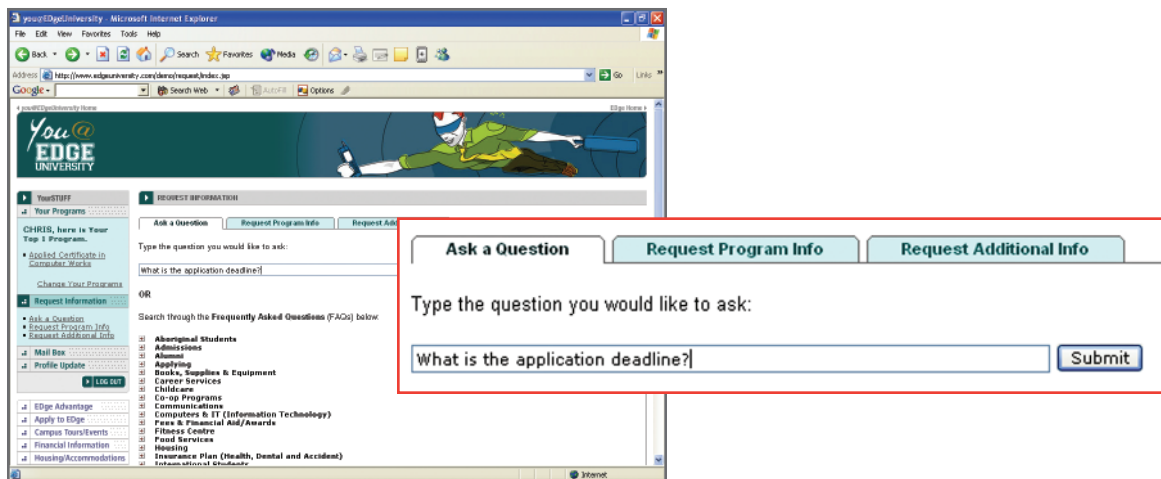
Knowledge base

ezFAQ™ comes with a pre-defined set of frequently asked questions and their corresponding answers in its "ready-to-deploy" knowledge base. This unique knowledge base has been developed as a result of EDge Interactive's experience and its collaboration with several universities and colleges.

Student interface customization

Depending on your requirements, ezFAQ™ allows for easy customization of both the look and feel of the "Request Information" section on the Web site, as well as the preferred workflow.

The student will have a choice of asking a question by using the natural query feature (they will be able to type their question directly in the box provided), or by searching through the tree-based FAQ knowledge base if they are interested in locating general information about a particular FAQ category, i.e., "Admissions".



The answers can be displayed in several different ways in ezFAQ™. Below are some examples:

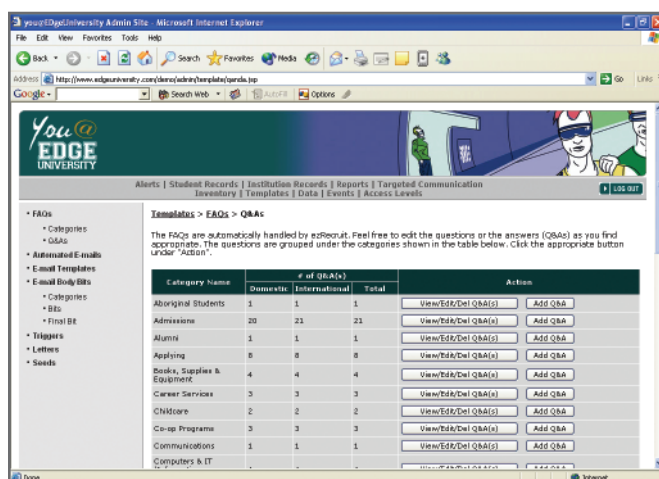
- 1) The most relevant FAQ and its corresponding answer are expanded so the student sees the answer on the screen immediately. Additional FAQs (lower relevance ranking) are displayed next, either in a drop-down, or with checkboxes. The student can then choose to view another FAQ from the drop-down, or use the checkboxes to retrieve multiple FAQs.
- 2) All relevant FAQs are displayed, with the highest ranked at the top of the list. Each FAQ is displayed with the first paragraph of its answer, and with a checkbox. The student therefore sees a preview of answers immediately. They can use the checkboxes to retrieve complete answers.
- 3) All relevant FAQs are displayed, with the highest ranked at the top of the list. Each FAQ is displayed with a checkbox. The student can use the checkboxes to retrieve complete answers.
- 4) The top 10 or 20 FAQs are displayed, instead of all FAQs, with the highest ranked at the top of the list, and with a checkbox.

ezFAQ™ Administrative Tools

The ezFAQ™ system comes with powerful administrative tools that give staff the ability to manage the following:

✓ Knowledge base content

Using a user-friendly Web interface, staff can easily monitor and manage the knowledge base. They can view the FAQs, add new FAQs, edit existing FAQs or delete / hide / activate FAQs.



The screenshot shows a web browser window displaying the ezFAQ administrative interface. The page title is "Templates - FAQs - Q&As". Below the title, there is a table with columns for "Category Name", "Domestic", "International", "Total", and "Action". The table lists various categories and their corresponding counts. The "Action" column contains buttons for "View/Edit/Del Q&As" and "Add Q&A".

Category Name	Domestic	International	Total	Action
Aboriginal Students	1	1	1	View/Edit/Del Q&As Add Q&A
Admissions	20	21	21	View/Edit/Del Q&As Add Q&A
Alumni	1	1	1	View/Edit/Del Q&As Add Q&A
Applying	8	8	8	View/Edit/Del Q&As Add Q&A
Books, Supplies & Equipment	4	4	4	View/Edit/Del Q&As Add Q&A
Career Services	3	3	3	View/Edit/Del Q&As Add Q&A
Childcare	2	2	2	View/Edit/Del Q&As Add Q&A
Co-op Programs	3	3	3	View/Edit/Del Q&As Add Q&A
Communications	1	1	1	View/Edit/Del Q&As Add Q&A
Computers & IT	-	-	-	View/Edit/Del Q&As Add Q&A

Editing of content is done using built-in editing tools that accommodate large amounts of text and support HTML formatting, i.e., creation of bulleted lists, hyperlinks to external or internal Web pages and inclusion of graphics.

✓ Targeted communication

Staff can customize answers to students, based on their profile information and which Web site they asked a question from. The system supports multiple audiences, i.e., prospective international students, prospective domestic students, current students or alumni. Each audience sees a different but equally relevant answer to the same question asked in ezFAQ™. An example is the response to *"How much is tuition?"*. Customized answers can be provided to display different fees for international students versus domestic.

When ezFAQ™ is integrated with your school's SIS, answers can be personalized to the student. An example is the response to *"What is my application status?"*.

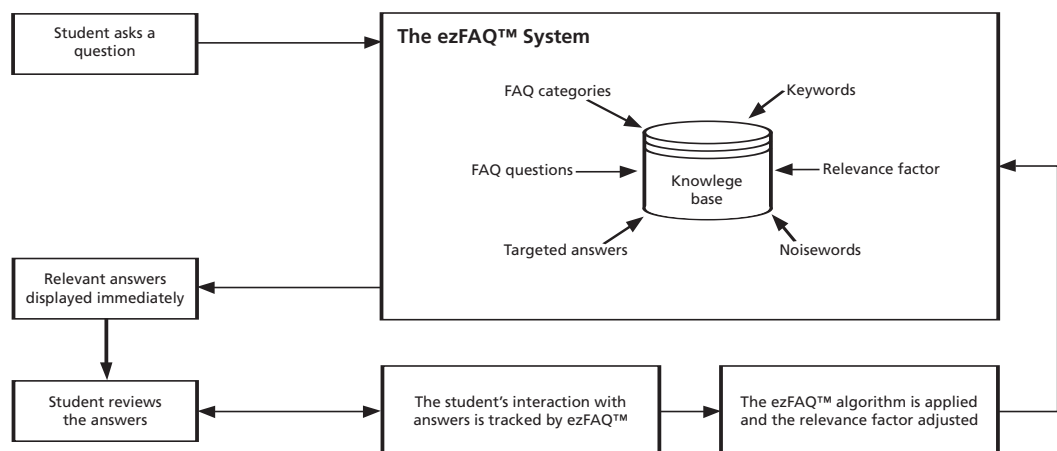
✓ Natural language matching process

Staff can also monitor and manage the natural language matching process. They can adjust and refine the system by using the filtering, ranking and language association tools provided.

ezFAQ™ Artificial Intelligence Component

ezFAQ™ employs a powerful proprietary A.I. component when searching through the knowledge base to retrieve a ranked list of relevant answers. While most of today's systems use keyword association and noise word filtering, the ezFAQ™ system has a built-in A.I. component that tracks student usage patterns and continually revises its ranking system for maximum accuracy.

ezFAQ™ is also able to quickly adjust its ranking of answers depending on the recruitment cycle. For instance, a question regarding "Application processing" before the deadline will display answers regarding the process (documents required, deadlines, etc). The same question, when asked after the deadline, will display answers regarding the application status and next steps required.

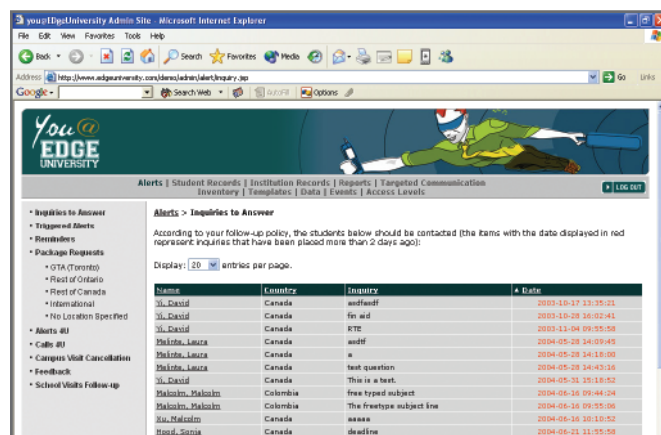


Handling e-mail

If a student does not find the answer to a question, ezFAQ™ automatically provides a free-type form. When the form is submitted, the student's question gets logged into the system.

On the admin site, an alert is automatically generated for the appropriate staff. For instance, a question from an international student will be routed to the international department, while questions from a domestic student will be routed to the admissions liaison office.

Using the user-friendly Web interface, staff can easily look up the student record, review all prior communication history and respond to the question in a timely manner.



The screenshot shows a web browser window displaying the 'You@EDGE UNIVERSITY' admin site. The page title is 'Alerts > Inquiries to Answer'. Below the title, there is a text block: 'According to your follow-up policy, the students below should be contacted (the items with the date displayed in red represent inquiries that have been placed more than 2 days ago):'. Below this text is a table with columns: Name, Country, Inquiry, and Date. The table contains 10 rows of data, with the last two rows having red dates.

Name	Country	Inquiry	Date
Ul, David	Canada	enrfeuff	2003-10-17 23:35:21
Ul, David	Canada	enr ad	2003-10-20 16:00:41
Ul, David	Canada	ETE	2003-11-04 09:55:58
Makoto, Masaru	Canada	enrff	2004-05-28 24:00:45
Makoto, Masaru	Canada	a	2004-05-28 24:18:00
Makoto, Masaru	Canada	test question	2004-05-28 24:43:36
Ul, David	Canada	This is a test	2004-05-31 20:18:52
Makoto, Masaru	Columbia	free typed subject	2004-06-16 09:44:24
Makoto, Masaru	Columbia	The freetype subject line	2004-06-16 09:55:06
Xu, Malcolm	Canada	aaaa	2004-06-16 10:10:52
Road, Samia	Canada	deadline	2004-06-21 11:55:58

Responding to questions is made easy by using pre-defined e-mail templates, or by customizing a personalized e-mail via drop-down menus and selecting multiple pre-formatted text. Staff can also forward the student's question to another staff member who may be better qualified to answer the question.

Once the student's question has been answered, staff can choose to add it to the knowledge base. The knowledge is captured, and made available to others.

When ezFAQ™ is deployed as part of ezRecruit™, all communication history with the student, which includes the date and time of any action taken on the student's question, who handled it, and the communication content, is tracked.

Handling requests for other material

ezFAQ™ can handle requests for materials such as course catalogues and brochures, by immediately directing the student to the relevant online versions of the material.

For instance:

Q: *Can I download an application form?*

A: You can download an application form at <http://www.edgeuniversity.com>, but you can also apply online at <http://www.edgeuniversity.com/demo/reg/index.jsp>.

When ezFAQ™ is deployed as part of ezRecruit™, you can easily handle requests for printed material, through the Package Requests and Inventory components. Once again, all communication history with the student is tracked, and includes the date and time of package sent, package content and who handled it.

Reports

The ezFAQ™ system comes with many standard reports that are generated in real-time. It is also possible to customize reports. Standard reports include:

✓ Usage reports

Track usage patterns by FAQ category, questions and keywords.

you@EdgeUniversity Admin Site - Microsoft Internet Explorer
 Address: http://www.edgeuniversity.com/demo/admin/reports/faqcate.jsp

you@EDGE UNIVERSITY
 Alerts | Student Records | Institution Records | Reports | Targeted Communication
 Inventory | Templates | Data | Events | Access Levels

Reports > FAQs Selected > By FAQ Category
 From January 1, 2004 to August 23, 2004

FAQ Category	Total
Aboriginal Students	13
Admissions	151
Alumni	0
Applying	77
Books, Supplies & Equipment	1
Career Services	3
Childcare	2
Co-op Programs	4
Communications	1
Computers & IT (Information Technology)	6

✓ Student profile reports

Monitor the trend of student FAQ patterns based on their demographics, educational background and programs of interest.

you@EdgeUniversity Admin Site - Microsoft Internet Explorer
 Address: http://www.edgeuniversity.com/demo/admin/reports/faqprov.jsp

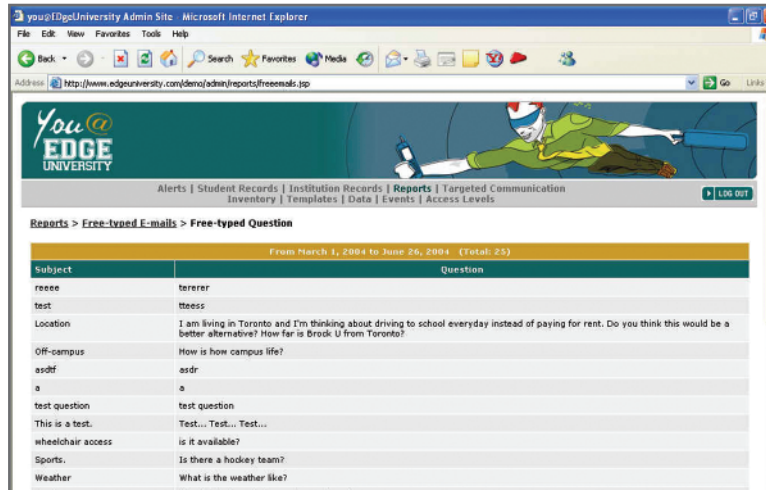
you@EDGE UNIVERSITY
 Alerts | Studi

Reports > FAQs Selected > By Province/State

Province/State	Aboriginal Students	Admissions	Alumni	Applying	Books, Supplies & Equipment	Career Services	Childcare	Co-op Programs	Communications	Computers & IT (Information Technology)	Counsellor and Disability Services
Alberta	1	60	0	10	0	0	0	1	0	0	0
Manitoba	0	5	0	0	0	0	0	0	0	0	0
Nebraska	0	2	0	2	0	0	0	0	0	0	0
New York	0	6	0	8	0	0	0	0	0	0	0
Newfoundland and Labrador	0	1	0	0	0	0	0	0	0	0	0
Nova Scotia	0	1	0	3	0	0	0	0	0	0	0
Ontario	11	80	0	49	1	1	0	0	0	2	0
Québec	0	3	0	0	0	0	0	0	0	0	0

✓ E-mail reports

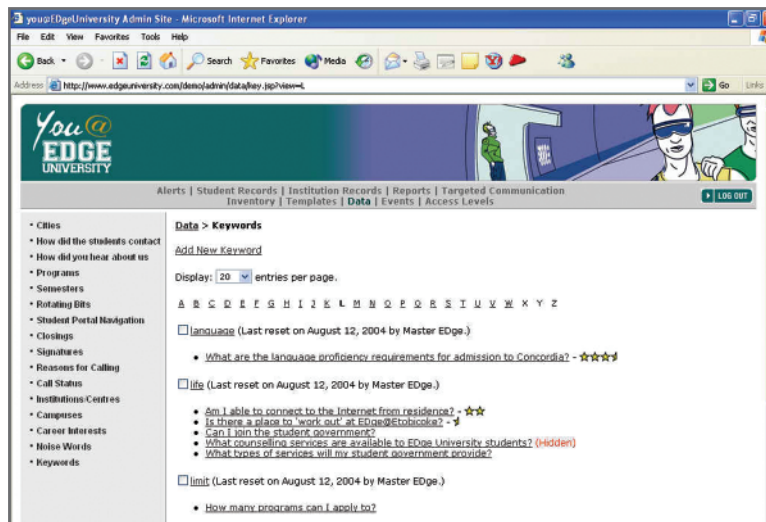
ezFAQ™ provides a detailed report on all free-typed e-mail questions from students. These reports help in identifying repetitive and common questions. By reviewing these questions regularly, and updating the knowledge base, the new information is made available immediately. As a result, students gain access to the information they need and the number of free-typed e-mail inquiries drops.



Subject	Question
reeee	tererer
test	tteess
Location	I am living in Toronto and I'm thinking about driving to school everyday instead of paying for rent. Do you think this would be a better alternative? How far is Brock U from Toronto?
Off-campus	How is how campus life?
asdrf	asdr
a	a
test question	test question
This is a test.	Test... Test... Test...
wheelchair access	is it available?
Sports.	Is there a hockey team?
Weather	What is the weather like?

✓ Keyword ranking reports

The ezFAQ™ system provides a keyword ranking report that displays the different relevant rankings of a keyword for each associated FAQ in the knowledge base.



Keyword	Ranking
language (Last reset on August 12, 2004 by Master EDGE.)	<ul style="list-style-type: none"> What are the language proficiency requirements for admission to Concordia? - ★★★★★
life (Last reset on August 12, 2004 by Master EDGE.)	<ul style="list-style-type: none"> Am I able to connect to the Internet from residence? - ★★ Is there a place to "work out" at Edge@Stolacola? - ★ Can I join the student government? What counselling services are available to EDge University students? (Hidden) What types of services will my student government provide?
limit (Last reset on August 12, 2004 by Master EDGE.)	<ul style="list-style-type: none"> How many programs can I apply to?

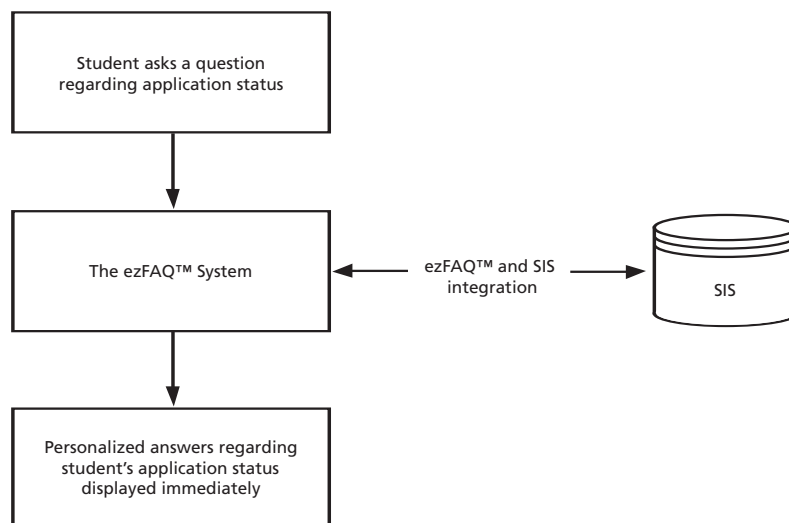
✓ Staff productivity reports

ezFAQ™ also produces a staff productivity report. This calculates the total number of free-typed e-mail questions handled and the average response time.

From January 1, 2003 to August 23, 2004			
Admin User	Access Level	Free-type E-mails Total	Average Response Time (days)
1, 1	Admin Level 1	0	0
4, 3	Admin Level 3	0	0
5, 5	Admin Level 4	0	0
Anderson, Ken	Admin Level 2	0	0
Beckford, Lori-Ann	Admin Level 2	0	0
EDGE, Master	Master Admin	49	9
Malinta, Laura	Admin Level 2	0	0
Mohammed, Fatima	Admin Level 4	0	0
Natale, Beth	Admin Level 2	0	0
Natale, Beth	Admin Level 1	0	0

Integration

ezFAQ™ can be deployed as part of ezRecruit™ or in a stand-alone configuration. The system can also be integrated with your school's student information system (SIS). The benefits of integration with SIS include the ability to provide students with real-time personalized answers about their application status.



The ezFAQ™ system has been designed using open architecture, and therefore can easily integrate with any systems. For instance, ezFAQ™ can be integrated with systems to provide personalized answers regarding a student's housing application status or financial aid application status.

Hosting / technology options

ezFAQ™ can be deployed as an ASP solution, or installed on-site onto your school servers.

✓ ASP solution (hosted on EDge servers)

The ASP solution offers the convenience of outsourcing hardware, software and IT resource requirements to EDge Interactive. Regular maintenance activities such as daily back-ups and periodic application of technology patches are no longer needed by the school.

✓ On-site solution (hosted on your servers)

If the system is installed on your school servers, you can choose from any combination of the following platform options:

- Operating system:** Unix or Linux
Windows
- Database system:** Oracle
MS SQL Server

Results

The following statistics are based on research conducted by EDge Interactive at five higher education institutions in 2003-2004. These institutions currently use the tree-based FAQ system, and have realized reductions in free-typed e-mail inquiries ranging from 79 to 92%.

SURVEYED SCHOOLS	E-MAILS		TREE-BASED FAQ	
	Number	Percent	Number	Percent
School 1	5,289	8.50 %	56,957	91.50 %
School 2	1,546	9.45 %	14,809	90.55 %
School 3	1,642	20.99 %	6,179	79.01 %
School 4	1,907	15.08 %	10,741	84.92 %
School 5	5,924	11.78 %	44,350	88.22 %

With the ezFAQ™ system, the reduction in e-mail inquiries is projected to improve by another 5 to 10%, therefore boosting the average reduction rate to a range from 93 to 98%. When ezFAQ™ is integrated with the SIS, this rate improves even more, and you can achieve a range from 93 to 99% and above.

EDge Interactive

EDge Interactive is a leader in creating and developing focused solutions for the educational community. Based in Toronto, Canada since 1995, EDge has enjoyed strong growth as a provider of information services and software to clients across North America. EDge's products and services include e-Tours™, Interactive ViewBooks™, ezRecruit™, Web site design, consulting, e-mail marketing and recruitment services. EDge manages its own sites including: <http://www.SchoolFinder.com>, <http://www.ScholarshipsCanada.com>, and <http://www.StudyinCanada.com>.

EDge Interactive

3470 Pharmacy Avenue
Toronto, Ontario, Canada
M1W 2S7

Phone: 416.494.3343
Toll-free in North America: 1.800.211.5577
Fax: 416.494.0949
E-mail: info@edgeip.com
Web: www.EDgeip.com

For more information or a product demo, call 1-800-211-5577 or e-mail: info@edgeip.com.