

Palau Ministry of Education

Executive Summary

Sam Walczak, Joseph Amegatcher, Student Consultants
Community Partner, Edwel Ongrung

I. About the Organization

Palau's Ministry of Education (MOE) is responsible for managing, operating, and promoting the country's public school system which consists of 16 elementary schools and one secondary school. The Ministry is also responsible for developing and implementing the nation's educational curriculums. Its mission statement is as follows¹:

The Republic of Palau Ministry of Education, in partnership with students, parents, and the community, is to ensure student success through effective curriculum and instruction in a conducive learning environment.

Currently the Ministry employs 423 people and serves 2000 students around the country. Its major sources of funding are the Palau Government as well as the US Department of Education through various grants.

II. Centralizing Operational Metrics

The Ministry is moving towards performance-based budgeting that requires more detail on operational metrics. In line with this, there is the need to keep track of various operational metrics such as energy and fuel consumption so that current performance can be calculated and adjustments can be made. Based on prior work from the Ministry's IT team, the student consultants designed and implemented a locally-hosted web application to aid the collection and analysis of energy data.

III. Content Management and Curriculum Delivery Application

The Ministry recently deployed 200 iPad to schools; these devices are intended for 8th graders to use in conjunction with the Ministry's College Access Challenge Grant program. In order to utilize both the capabilities of the iPads for teaching and automation of curriculum instruction, student consultants designed and implemented a locally-hosted web application specializing in curriculum content management for said program that can be expanded to other areas of teaching. Content from each

¹ Republic of Palau Education Master Plan.

weekly or bi-weekly lesson plan can be added and universally accessed through said content management system.

IV. Providing Supplemental Content on Local Network

To boost the number and quality of learning materials available to students, a commercial online educational resource platform, iClassroom, was implemented by an external vendor. The platform provided videos as well as digital textbooks and other resources for use by teachers and students. Owing to challenges concerning continued support for the platform by the vendor, an alternate solution was sought after. The student consultants deployed a free and open repository, RACHEL which matched the content previously available from commercial solution.

About the Consultants

Sam Walczak

swalczak@andrew.cmu.edu

An undergraduate student at Carnegie Mellon University majoring in Information Systems and Chinese Studies. Sam hopes to work internationally through the field of technology consulting after graduation.

Joseph Amegatcher

jamegatc@andrew.cmu.edu

A graduate student at Carnegie Mellon's Heinz College majoring in Information Systems Management. Joseph is seeking opportunities in software engineering and technology consulting.

Consulting Partner

Edwel Ongrung

edwel@palaumoe.net

Computer Service Manager

Palau Ministry of Education

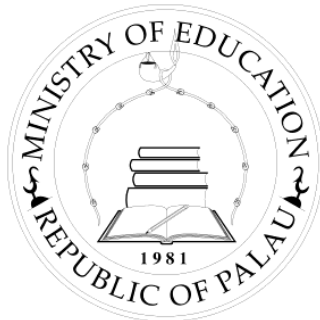
P.O. Box 189

Koror, Palau 96940

<http://www.palaumoe.net/>

Palau Ministry of Education

Sam Walczak, Joseph Amegatcher, Student Consultants



Palau Ministry of Education Final Consulting Report

Sam Walczak, Joseph Amegatcher, Student Consultants
Community Partner, Edwel Ongrung

I. About the Organization²

Organization

Palau's Ministry of Education (MOE) is responsible for managing, operating, and promoting the country's public school system. This said school system consists of 16 elementary schools and one secondary school. The Ministry is also responsible for developing and implementing educational curricula for these education levels. The Ministry's mission statement is as follows³:

The Republic of Palau Ministry of Education, in partnership with students, parents, and the community, is to ensure student success through effective curriculum and instruction in a conducive learning environment.

Currently the Ministry employs 423 people and serves 2000 students around the country. Its major sources of funding are the Palau Government as well as the US Department of Education through various grants.

² Where applicable background information was adapted from the 2014 consulting report by Andrew Schwartz and Yasuyuki Nishihara

³ Republic of Palau Education Master Plan.
Palau Ministry of Education
Sam Walczak, Joseph Amegatcher, Student Consultants

Facilities

The Ministry of Education is in charge of 118 buildings making up 340,000 square feet of space. These buildings include educational facilities as well as administrative ones. The primary building for the Ministry of Education is located in Koror, directly across the street from the Palau High School. It is home to multiple IT facilities, including the Ministry's main server room. There is adequate security and cooling capabilities for these facilities and these buildings are only accessed by IT staff or when IT staff is present.

Furthermore, each academic campus has its own computer lab with an average of 15 machines. There are also tablets available at each campus, mainly stored in the computer labs or academic offices of each building, the most secure areas of the schools. Schools in more remote areas, such as Peleliu and Kayangel are too far to reach the MOE's intranet and have their own networks installed. These systems are updated manually by MOE IT in person.

Programs

The Ministry provides curriculum, technology, and logistic support for the many academic programs throughout the schooling system up until the end of high school. The Ministry in conjunction with the US DOE College Access Challenge Grant also provides essential financial literacy and career preparation and information for high school students and their families. The CACG is, a major program supported by the Ministry and funded by a joint effort between Palau Government and the United States DOE. It was set up specifically to partner with both government and non-governmental agencies to provide funding for programs aimed at boosting college and post-secondary attendance in lower income students. There are other programs, such as the Ministry's Career and Technical Education program that focus on specific aspects of career development. The Ministry of Education's programs are represented online under the Ministry's website or affiliated sites such as Palau High School's website.

Staff

The Ministry is headed by a politically appointed minister and run by a management team comprising the minister, directors and chiefs. Currently the minister is Sinton Soalablai who was appointed in 2014. The Ministry of Education is divided into two bureaus, the Bureau of Curriculum Instruction (BCI) and the Bureau of Education Advancement (BEA). These bureaus are further comprised of various divisions dedicated to the Ministry's core processes. The BEA also houses support services, which includes Information Technology. See Appendix A for the full organizational chart.

The MOE IT is made up of five IT workers with Edwel Ongrung heading the department as Computing Services Manager. As community partner, he was the most immediate contact for the student consultants. Roughly one third of the Ministry's staff use computers on a daily basis.

Palau Ministry of Education
Sam Walczak, Joseph Amegatcher, Student Consultants

Within the schools, staff has access to the computer labs and teachers have access to currently deployed tablets. About 40% of the teachers in Palau have the computer literacy to use a word processor based on a 2008 survey, however with an influx of younger teachers, this number is expected to increase. Furthermore, there are training mechanisms within the organization for tablets and computer use; however the Ministry is not up to date on delivering these specific trainings to teachers. As of August 2014, training is currently being conducted on tablet use for teachers in Koror.

Technology Infrastructure

The majority of the computers in the MOE are based on OSX, including iMacs, Macbooks and Mac Minis. There are a fair number of Windows based systems also. Even though there has been training for administering and integrating Linux systems, the initial attempt to introduce Linux thin client systems (Linux Terminal Server) did not catch on. Linux systems are therefore limited to server applications. The Ministry contains a wireless network throughout the central office building with WPA2 security protocols as well as a separate wireless network for work with the College Access Challenge Grant. Current infrastructure supports authentication, mail, and web servers as well as some necessary requirements like DNS and DHCP. MOE relies heavily on open-source software which helps to keep costs down.

The MOE is also the central hub for Internet access with schools connecting to it via remote dial-up, wireless or 256kbps DSL. Internally, the schools have wired networks and in addition to this wireless networks are being setup to facilitate the use of tablets as in-class learning tools. The Koror Elementary School wireless network has already been set-up while those for the remaining schools are scheduled to be built within the next few weeks.

Technology Management

The IT department at the Ministry is the central hub for technology management. They are responsible for managing technology infrastructure, including solving technical related problems.

Problems with technology are reported by the office requesting assistance to the IT department through job orders, which include information such as a short description of the problem, an estimate of cost, schedule, and the name of the person reporting the issue. Job orders must be approved by the head of the office sending the said order out. Problems are not addressed by the IT department unless there is a relevant job order.

After receiving a job order ^[2], the IT department then fixes the issue and logs their progress using a separate document. These logs until very recently have not been saved for archival. Currently, job orders are done on a first come first serve basis and order priority is not taken into account except in extremely urgent scenarios. Technology that needs to be fixed or replaced is typically sent to the IT department rather than fixed on site.

Technology Planning

The Bureau of Administrative Services is responsible for the planning and management of technology. The management team (consisting of the Minister, Director and four Chiefs) must approve all official changes and determines priority of projects. While there is an acknowledgement for the need integrate technology in order to improve student achievement and the organization's operational efficiency and effectiveness. There is no plan in place so an ad-hoc approach based on current needs is used.

Communication

Nonessential information is typically transferred by word of mouth. More pressing information, such as logistics, is communicated by email which most staff is very comfortable with doing. As part of the tasks the student consultants from 2014 setup Jabber and CalDav were setup, but as of now jabber for messaging does not seem to have gained significant traction.

The MOE's website continues to provide information for external parties whereas the intranet hosts content for internal use. A shared location on the intranet is provided to allow schools easy access to content such as Khan Academy videos. With the success of the Test management system created by student consultants in 2007 and time logging apps there is a push to centralize other communications via web forms.

Information Management

Information management is primarily done on paper; however there has been a recent effort to transfer paper-based information to the Ministry's servers. Information such as grades and student progress are currently done by hand on paper, and then after some time entered into a MySQL database by the teachers using a web interface.

In 2009, CMU student consultants streamlined the data entry process for standardized tests, which before were entered into flat spreadsheets on Microsoft Excel. From their consulting work, they created a centralized test database with analytical functions that is still being used to this day. This has led to more attempts at automation; however none have been met with the same success.

Currently, the paper-based system for managing information is causing problems within the Ministry. With student progress and grade reporting, the Ministry is running into issues with inconsistent and incomplete data. This is due to files being lost in the process and the multiple steps in data entry in transferring data to an electronic information system.

Business Systems

The Ministry does not take care of its own business systems. Payroll, accounting, and other systems are taken care of by the national government.

II. Centralizing Operational Metrics

Motivation

A major objective of the Bureau of Administration is to improve administrative efficiency. In line with this, there is the need to keep track of various operational metrics such as energy and fuel consumption so that current performance can be calculated and adjustments made based on the results. The management team at its meetings would also require the metrics data as inputs for the preparation of public reports on the Ministry's overall performance. Considering that some of the data required is generated from multiple locations, the MOE needs a way of aggregating the data from various sources in a timely, accurate manner as well as the ability to transform data into a state that the data be easily analyzed in order to make appropriate recommendations.

Outcomes

1. Determined the priorities for establishing operational metrics

From meetings with Edwel, the primary requirements to be met were getting the data from the various sources into a central location for analysis and also eliminating or reducing the manual calculations needed to transform the raw data for analysis.

2. Evaluated alternate solutions

Two options were considered, the first option explored was to use Google's cloud based forms for data collection then the use of spreadsheets for necessary calculations some of which could be augmented with scripting either directly on Google spreadsheets or in Microsoft Excel. Google forms provide a simple interface and an extensive array of components for form design. Also, since records are stored in an accompanying spreadsheet in the cloud, the data would be automatically centralized.

The second option was to develop a web application on the MOE intranet. The advantages offered by this option was that there would be more flexibility in including specific features since it would be tailor made application. However the downside is that developing a completely new application would be a more complex solution.

On further exploration, Google forms were not feasible. Cloud based options would be usable only in the MOE central office which has the highest bandwidth. Also, usability would degrade some more when the schools were in session because the bandwidth would be shared with even more users. Development of a web application on the intranet was selected as the solution to

deal with that limitation since an application deployed on the intranet bandwidth would not be limited by the lack of bandwidth available to access the Internet.

3. Implemented PHP Web Application for Energy Metrics

A web application for the collection and analysis of energy usage was implemented as a proof-of-concept. Based on the technologies already being used in the MOE, PHP was chosen as the language for development and MySQL for the database. Slim PHP, a micro framework which provides essential components such as URL routing and session handling was also selected to further boost ease of development. The application was developed as a REST API at the core hence all the functionality available through the user interface can be accessed via calls to the API, allowing separation between the backend and frontend functionality.

The user interface was designed with a tabbed navigation with each major section having a tab. Designated data collectors would have access to the Logs tab to enter readings from the various meters located at the different campuses managed by the MOE. The readings can be entered as single entries or batches. The assigned mid-level manager who would be responsible for the more frequent monitoring can generate the energy consumption reports and apply simple filters to the report data from a separate Reporting tab. The application also has appropriate interfaces for setting up new campuses or editing already loaded data. These management functions are in a Setup tab. See Appendix [B] for screenshot of the implemented functions.

Earlier in the development process, one of the goals was to make the application as self-contained as possible, so preliminary work was began to integrate a charting component as well as a pivot table plugin to carry out analysis in the application. In consultation with Edwel, that aspect was dropped in favor of exporting the data to excel when more complex manipulations would be performed if needed. Excel pivot tables provide ‘drag and drop’ functionality to summarize as well as explore data easily.

It must be noted that though Edwel was taking through a walkthrough of the functionality of the application as well as the code, no further user testing was done by the staff that might be selected as recorders. Also, since the system was not put to use prior to the end of the consulting period it has not been tested with actual data from the schools. As mentioned, a major risk of building a custom solution is the added complexity of maintaining the codebase so this is an inherent risk in deciding to build a custom application, prior to this the Ministry has relied on outsourcing to deal with issues in their applications so this would likely continue since the Ministry’s development capability is limited at the moment.

Recommendations

As the number of applications being hosted increases, it is important to make adequate changes to infrastructure and procedures to accommodate their smooth operations. Currently all the web

applications available on the intranet are hosted on the same physical device. It is recommended that the MOE implement some level of separation of concerns to ease management, as well as add a layer of security.

Multiple applications could still be hosted on a single physical device within reasonable constraints but it might be helpful to host their databases separately this is especially the case with the database for the metrics since it is likely to grow in size quickly. It is also important that regular backups of the databases are kept.

Although MySQL was chosen, PostgreSQL would have been a more appropriate database engine considering the growing need for not only storing but analyzing data. PostgreSQL supports native analytic functions which have to be simulated in MySQL. It was not used however because there was no in-house familiarity. MOE should consider upgrading knowledge in this area as part of future partnerships with TCinGC.

III. Content Management and Curriculum Delivery Application

Motivation

The 2014 student consultants from TCinGC focused on a deployment plan for the Ministry's recently purchased iPads. While initially intending to follow the deployment plan, implementation of said plan was delayed. These tablets are currently being applied to lessons on an ad-hoc basis. There is a need to incorporate these devices into the teacher's curriculums, since without a streamlined way to deliver content from lesson plans, the tablets are currently not being utilized to their fullest potential.

Using iPads can offer more opportunities for clearer record keeping, as interacting with electronic devices allows for easier automation of data entry, rather than having to add the extra paper-based step as with most MOE processes. This allows for more accurate data and significantly less time wasted in the data entry process.

Creating a content management and delivery application solves the issue of underutilized tablets while adding the benefit of clearer record keeping. Being able to add content to a centralized system to be accessed over the school's intranet allows for the students to get curriculum related content quickly, adding great utility to said devices. In the same application, being able to record which curriculums are being taught and given said content to is a great way for the schools to add additional digital record keeping, helping the transition to electronic records and offering room to expand this initiative with scalability.

Outcomes

1. *Determined the priorities for data automation within the organization*

When discussing the initial scope of the project, the issue of what processes were to be automated was at the root of the talks. Various data points such as grading, student progress,

and completed lessons were discussed, before we decided that the number one priority was to create a content management system that prioritized keeping track of what lessons teachers completed and didn't complete in class. The actual completion of lessons was less important to the organization rather than knowing what lessons in the curriculum teachers were and were not able to teach within the school year.

2. *Established platform for creating a content management system*

There were many other options considered for the task at hand. Using existing services available on the iPad such as Khan Academy, which tracks student progress, were considered. Complications from the network and linking accounts over multiple tablets would cause many logistical problems. Users would be frequently locked out of using these services and tracking student progress. Other options such as Moodle, canvas, and other content management systems were considered as well, however due to past interactions with such services, the Ministry of Education was unenthusiastic about using said services. Furthermore, by having a custom built solution, we were able to build something that tailored exactly to what the Ministry asked for. Furthermore, while there is a large amount of useful information for teaching on these services, they cannot bring the personalized information necessary to teach according to a Palauan curriculum, which made us decide to create our own content management system to host these resources and keep track of completed lessons.

As the system was designed, multiple means of development were considered, primarily being a native app, hybrid app, and a web application. Because the Ministry of Education owns both android and iOS tablets, in order to scale the application in the future creating a web-based application seemed to be the most logical choice.

3. *Created content management system on the local intranet*

The application was created using the Slim framework in PHP, as PHP was the most commonly used programming language for MOE applications and the easiest for the organization to service. The framework Slim was chosen in order to simplify the coding process. Slim as a framework is very lightweight and its functions are not heavily taxing on resources. The application was also built using Laravel's Eloquent ORM, which allows for easy access to the MySQL database the application was built around.

The application allows for teachers to schedule weekly lessons around the established curriculums in the CACG program^[4]. Teachers are then able to indicate their progress on said lessons, informing the school of where teachers are throughout the year. Most importantly, teachers are able to upload content to their weekly schedules, in which students are able to search through from an easily accessible home page see Fig [6-7]. Content uploaded to the intranet should be accessible to the students at a much faster speed than previously allowed, as it doesn't rely on external bandwidth.

The application currently can track which curriculums have been taught, which satisfies the functional and non-functional requirements discussed in initial talks and the planning stages. As the system is created in PHP with Edwel being closely involved with the development of

the system, there is a well-established understanding of how the application works, as well as an easy route for future development. PHP is the programming language most commonly used in the Ministry's systems and is what newer applications and updates to current systems are written in. The code base has been deployed to the Ministry's intranet, meaning the Ministry has complete access to all code created during the consultant's stay in Palau. In the future, as more information is wanted to be tracked electronically, additional functionality can be added to meet any new requirements necessary using their current connections with outsourcing vendors.

The solution has been tested; however there has been more of a focus on unit tests of the actual application rather than user testing. As many teachers were not working over the summer, finding appropriate users to test the application on was a challenge. The Ministry intended on starting to use the system at the beginning of the 2015 school year, however at the time of the consultants leaving Palau, the application was not in use. Lack of training for use of the system, both on the teacher and student side will most likely delay the implementation of the system.

Recommendations

While the school year starts the week after the completion of the student consultant's stay, it is important to not rush the deployment of the application. Outside a select few stakeholders in the application, the majority of teachers will be unfamiliar with its design and purpose. The user interface is intuitive; however because of the low computer literacy rate among teachers, without proper training in using the application, the system may not be as widely adopted as originally planned.

It is important when using this system have a keen eye in data collection. Because this system hasn't been used in schools, we can only make estimates to the upcoming figures of adoption and subsequent data that comes from adoption. In this time period, it is vital to look at data gathered, such as adoption rate of the system and accuracy of results when compared to paper-based methods of data collection. Teachers in Palauan schools have different levels of technical literacy while the success of the system requires active participation. Based on the initial use, it may be important to alter the deployment strategy and conduct more training. These findings will also help assess what features would be viable and useful to add in the future.

There should also be a larger focus on tablet training as a whole. Marcia mentioned in conversation that tablets are currently used without a plan by most teachers given their sudden introduction to the classrooms. Along with following last year's deployment plan, training teachers on appropriate uses of tablets would not only help with integration of this application into the classrooms, but better the student's learning experiences as a whole.

The Ministry of Education should consider upgrading its knowledge in PHP. Many applications within the organization, including the ones done over this summer, are written using PHP. It is understood that currently the Ministry will outsource coding work to the Philippines in order to fix

or upgrade code, however it would potentially save large amounts of money to be able to diagnose and solve coding related issues in-house. Since there has been talk about adding other forms of web-based data tracking, such as student grades, it will be worth it in the long-run.

IV. Providing Supplemental Content on Local Network

Motivation

The MOE invested in the iClassroom platform, which was to provide tools to facilitate digital learning and access to content. The iClassroom is a prepackaged solution of Open Educational Resources and provided access to content such as flexbooks which are openly licensed digital textbooks designed for elementary and high school education (K-12) as well as instructional videos from Khan Academy. After a measure of success, the system has however fallen out of use as support costs were increasing faster than expected. This has necessitated Marcia, who is an MOE technology specialist to resort to identifying resources online downloading them and make them available on the intranet. The MOE needed an alternative that could match the content available through iClassroom platform.

Outcomes

1. *Researched suitability of RACHEL*

Since the major content from the iClassroom platform were open sourced educational material, an option would be to acquire the content from their original sources. But that would require a significant amount of effort to package the resources together as has already been done. Fortunately, volunteers from WorldPossible.org have developed an educational package with the same goals of aggregating open educational content and making it available on local network. This initiative, dubbed RACHEL, is a collection of open source educational content including but not limited to Khan Academy, Wikipedia for Schools, Guttenberg Press Library and CK12 textbooks. The consulting team had preemptively obtained an image of RACHEL prior to arrival as a possible way to augment learning materials. A comparison with the content from iClassroom showed that RACHEL was an almost perfect substitute for the content aspect.

2. *Deployed RACHEL on to the MOE Intranet*

The MOE already had a webserver and database hence deploying RACHEL was relatively simple. The static content from RACHEL was transferred to a server already hosting a number of resources and a mysqldump of the database to enable searching was imported as well. Since not all the modules provided by RACHEL were needed, the modules which were not grade appropriate were deactivated. Additional benefits of switching to RACHEL apart from the cost savings is that videos in RACHEL are non-flash and hence accessible on a wider variety of

devices including the MOEs deployed iPads which could not be used to access iClassroom video content since they were encoded in flash.

V. Additional Recommendations

Security

In many organizations where there are urgent IT needs security is typically lower in priority and this seems to apply in some areas to the MOE. The student consultants recommend a few small steps that can have an overall larger impact on security. Currently, a number of servers have only root access which means all work is done as the root user. This is typically not advisable since it means most actions on the servers are run with more permission than necessary and breaks the principle of least privilege. Separate administrative accounts with sudo access should be created instead. The MOE should also consider public key authentication as a replacement for passwords to its servers. Passwords can be easily brute forced as compared to public key authentication. To reduce the risk of brute force attacks, obscure combinations can be chosen but this typically results in passwords which are too difficult to remember, increasing the likelihood of them being written down which brings about another security issue. The use of public key authentication coupled with pageant on windows or integration with OSX key chain should provide more security as well as ease of management

IT Management

In order to free up time within the organization, it may be a good idea to look into employing a help desk system. Using a system that has ticketing will help to manage time more effectively an allocated managerial resources appropriately throughout the company. Adding such a system would also allow for IT to keep track of issues within the organization to potentially find patterns in such issues. Electronically tracking changes will also prevent loss of data, since the forms currently used are paper-based. Finally, it may actually further satisfy those with IT related issues, as an electronic system would potentially add further transparency on the problem solving process within the organization.

About the Consultants

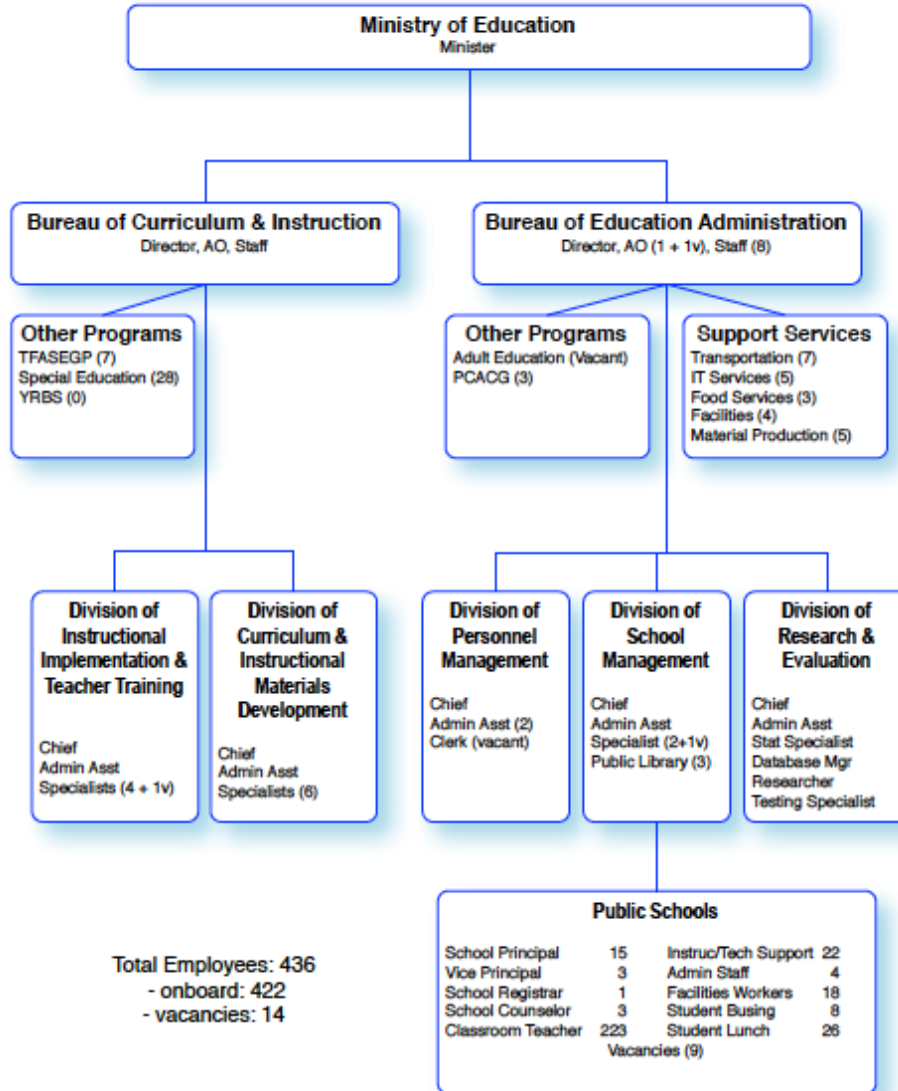
Sam Walczak is an undergraduate student of Information Systems at Carnegie Mellon University. He specializes in Global Systems as an undergrad. He will be attending the Heinz College for a Masters in Information Systems Management in Fall 2015 and will be graduating in Spring 2017.

Joseph Amegatcher is a graduate student at Carnegie Mellon University's Heinz College where he is enrolled in the Master of Information Systems Management program. Prior to this he worked in Accra for Genkey Africa, a large scale biometric solutions provider. He will be graduating in Fall 2016 and is seeking opportunities in both software development and technology consulting.

Palau Ministry of Education
Sam Walczak, Joseph Amegatcher, Student Consultants

Appendix A

Organizational Chart Expanded from Executive Order 268



Palau Ministry of Education
Sam Walczak, Joseph Amegatcher, Student Consultants

Appendix B

1. Screenshot of Centralized Operational Metrics Tabbed Navigation (Reports)

The screenshot shows a web interface with a top navigation bar containing 'Reports', 'Log', and 'Setup'. Below the navigation bar, the 'Reports' section is active. It includes a sub-header 'Reports' and a description 'Generate reports and visualize and export data'. There are two input fields for 'Date' with the value '2015-09-08' and a calendar icon. A 'View Report' button and an 'Export' button are also present. Below these elements, a message box states 'Nothing to display'.

2. Screenshot of Centralized Operational Metrics Tabbed Navigation (Setup)

The screenshot shows a web interface with a top navigation bar containing 'Reports', 'Log', and 'Setup'. Below the navigation bar, the 'Setup campuses' section is active. It includes a sub-header 'Setup campuses' and a description 'This pane allows you to manage campuses in the system.'. There are input fields for 'Campus Name', 'Short Name', and 'State', along with a 'Save' button. Below this, there is a 'List Campuses' button and a table with the following data:

Campus	Abbrev.	State	
Palau High School	PHS	Koror	edit delete
Koror Elementary School	KES	Koror	edit delete

Below the table, there are input fields for 'Building Name', 'Short Name', and 'Campus', along with a 'Save' button. At the bottom, there is a 'List Buildings' button and a message box stating 'Nothing to display'.

Palau Ministry of Education
Sam Walczak, Joseph Amegatcher, Student Consultants

3. Screenshot of Centralized Operational Metrics Tabbed Navigation (Log batch & Log Single)

Reports | Log ▾ | Setup ▾

Log Single

Log individual meter readings or enter bulk

Palau High School ▾ **Submit**

<input type="checkbox"/> LR Main	DateTime: 2015-09-08 08:00	<input type="checkbox"/>	Reading
<input type="checkbox"/> Admin	DateTime: 2015-09-08 08:00	<input type="checkbox"/>	Reading
<input type="checkbox"/> Business 1	DateTime: 2015-09-08 08:00	<input type="checkbox"/>	Reading
<input type="checkbox"/> Business 2	DateTime: 2015-09-08 08:00	<input type="checkbox"/>	Reading

Reports | Log ▾ | Setup ▾

Log Batch

Log individual meter readings or enter bulk

Campus ▾ Meter ▾ DateTime: 2015-09-08 08:00 Reading

Last Token Value **Submit**

Palau Ministry of Education
Sam Walczak, Joseph Amegatcher, Student Consultants

4

The Learning Center

Dashboard

Teaching Tools

Weekly Schedules

Content Manager

Admin Tools

Weeks Schedule Dashboard

[Create New Weekly Schedule](#)

Pending Completion

Week	Curriculum	Associated Content	Lesson Completed?
2015-08-10 - 2015-08-07	New Curriculum	What's That	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2015-08-17 - 2015-08-08	Using Skills to Select High School Courses	Testing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Weekly History

End Date	Curriculum	Complete?	
2015-09-01	Testing	Yes	<input type="checkbox"/> Remove
2015-08-30	New Curriculum	Yes	<input type="checkbox"/> Remove
2015-08-08	Using Skills to Select High School Courses	Not Addressed	<input type="checkbox"/> Remove
2015-08-07	New Curriculum	Not Addressed	<input type="checkbox"/> Remove
2015-08-09	Testing	No	<input type="checkbox"/> Remove

5

Learning Center

A College Access Challenge Grant Initiative

Search For Your Teacher or Lesson Plan

Teacher

Website Administrator Weekly Lessons

Week	Curriculum	Content
08-10 - 08-07	New Curriculum	What's That
08-17 - 08-08	Using Skills to Select High School Courses	Testing
08-24 - 08-30	New Curriculum	No content for this weekly schedule.
08-26 - 09-01	Testing	No content for this weekly schedule.
08-03 - 08-09	Testing	No content for this weekly schedule.