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USAID KENYA AFRICA-U.S. HIGHER EDUCATION INITIATIVE PARTNERSHIP BETWEEN KENYATTA UNIVERSITY AND SYRACUSE UNIVERSITY FINAL REPORT

DECEMBER 2014

This publication was produced for review by the United States Agency for International Development. It was prepared by the American Council on Education, Office of Higher Education for Development.

USAID KENYA Africa-U.S. Higher Education Initiative Partnership between Kenyatta University and Syracuse University FINAL REPORT

18 MARCH 2011 – 17 SEPTEMBER 2014

Award No: AID-623-LA-11-00006

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ACRONYMS AND ABBREVIATIONS

ACE	American Council on Education
CFD	Committee for Faculty Development
DECT	Department of Educational Communication and Technology
DQV	Data Quality Verification
FY	Fiscal Year
GOK	Government of Kenya
HED	Higher Education for Development
HICD	Human and Institutional Capacity Development
ICT	Information Communications Technologies
KU	Kenyatta University
M&E	Monitoring and Evaluation
MS	Master of Science degree
NGO	Non-Governmental Organization
NI3C	National ICT Innovation and Integration Centre
PhD	Doctorate degree
PRIME	Partnership Results & Information Management Engine
SU	Syracuse University
USAID	United States Agency for International Development
USAID/AFR	United States Agency for International Development/Africa Bureau
USG	United States Government

I.AFRICA-U.S. HIGHER EDUCATION INITIATIVE PARTNERSHIP BETWEEN KENYATTA UNIVERSITY AND SYRACUSE UNIVERSITY EXECUTIVE SUMMARY

This partnership was funded by the United States Agency for International Development (USAID) through a grant to American Council on Education (ACE), Office of Higher Education for Development (HED) as part of the Africa-U.S. Higher Education Initiative. The Initiative is a collaborative effort that was started in 2007 led by the Association of Public and Land-grant Universities (APLU) and supported by a number of higher education associations and other organizations to advocate for increased engagement in African higher education capacity development.

The partnership between **Kenyatta University (KU)** and **Syracuse University (SU)** entitled, “Building capacity through quality teacher preparation,” enhanced the capacity of Kenyatta University faculty, educational programs, research, and engagement with stakeholders to result in improved secondary education in Kenya. The partnership built capacity at the KU Department of Educational Communication and Technology (ECT) and contributed to advancing secondary school education through quality teacher preparation—from pre-service teacher preparation, to novice teacher induction, to practicing teacher continual growth.

The objectives of the partnership were:

1. Strengthen the capacity of KU teacher education faculty members resulting in improved teacher preparation for the education sector in Kenya;
2. Strengthen the research capacity of the KU teacher education programs resulting in improved knowledge that produces more effective education;
3. Enhance the KU teacher education program resulting in improved instructional capacity; and,
4. Provide quality service to education stakeholders resulting in improved instruction in participating secondary schools.

Qualitative Impact

The goals of building capacity among the faculty members in the Department of Educational Communication and Technology (ECT) both in pedagogical terms and in research capacity were achieved.

Faculty members in the Department of ECT participated in 23 **professional development workshops**. These trainings contributed to the development of skills of KU faculty in the areas of curricula review, teaching large classes, using interactive whiteboards and technology in teaching, using multimedia case studies in teaching, and improving pedagogical training and research skills.

A successful **scholar exchange** program where 11 Kenyatta University faculty members spent two months at Syracuse University enabled them to observe classes, work on research projects, use the SU library, attend professional conferences and present a paper or poster at the conferences they attended. Participants increased knowledge within their areas of specialization and expanded their professional networks during the exchange.

A “**sandwich degree**” training program provided KU faculty members with an opportunity to take courses in research methodology and improve their dissertation proposals and data collection. They earned a Certificate of Advanced Study from SU. This experience broadened their knowledge and offered a comparative perspective for their research.

A key partnership achievement was the development of six **research studies**. Partners planned and carried out six collaborative research studies in the following areas: (1) Technology Integration in Kenyan Secondary Schools, (2) Teaching Practice, (3) Literacy Benchmarks in Kenyan Secondary Schools, (4) Dealing with Large Classes in Kenyan Secondary Schools, (5) Mentoring Pre-Service Secondary Teachers, and (6) Supporting All Learners in Kenyan Secondary Schools. Findings from these research studies will

contribute to improving instructional practices in English language teaching in secondary schools in Kenya, handling students with special needs through inclusive education, integrating technology in secondary schools, offering strategies on teaching and learning with large classes, and using case studies to promote teacher learning.

During the final year of implementation, partners developed nine **policy briefs** based on their six research studies and on data collected as part of their professional development workshops. These policy briefs will benefit KU administrators, Ministry of Education officials, other school of education deans, and secondary school principals toward improving teaching and learning in Kenya. The policy briefs include areas such as managing large classes at University and secondary school levels, supporting all learners, implementing and integrating technology in Kenyan secondary schools, teaching practice for pre-service teachers, supporting students with visual impairments using assistive technology, and mentoring in pre-service teacher training.

Partners revised curricula for the Bachelor of Education in Science and Bachelor of Education in Arts undergraduate courses (traditional and school-based programs) and master's courses. The reviews were informed by data collected from surveys and feedback on areas such as integrating technology, teaching large classes, and supporting all learners.

The partnership enhanced experiential education through the development of 19 **multimedia case studies** across six subject areas that include lessons filmed in Kenyan secondary classrooms. KU faculty members are using these multimedia case studies to help pre-service teachers prepare for the teaching practice by reflecting on experiences of secondary teachers' instructional practice. A SMART Board was launched and training was provided in the Department of Educational Communication and Technology for use as a resource in teaching, drawing diagrams and flow charts, using animations, calculating formulas, grouping objects, and using software on the SMART Board to demonstrate processes or concepts that are otherwise difficult to conceptualize (e.g., blood circulation).

Partners developed and piloted a **mentoring program** for pre-service teachers and cooperating teachers during their teaching practice. The major outcome from the pilot mentoring program was gaining information from both student teachers and cooperating teachers about their perspectives on the teaching practice process, and being able to use the information to restructure teaching practices.

The Department of ECT has become a hub of innovation and is known for the capacity that has been built, particularly in the use of **technology in teaching and strengthening technological skills** among faculty members. Several faculty members in the department have been asked to lead university-wide workshops on pedagogical strategies. A number of faculty members in the department report that they have changed their instructional approaches due to the capacity they have built through the **professional development workshops and the introduction of technology assisted teaching through the use of interactive smart boards**.

Project funds provided each full-time faculty member with a laptop and an Internet modem to access resources and share information quickly and efficiently. In addition to the interactive whiteboard, partners modernized their materials through the purchase of iPads, iPad holders for use as document cameras, LCD projectors with laptops and external speakers, digital cameras, science and language kits, and many books and other curricular materials for use in teaching.

A key partnership achievement was improving learning opportunities for individuals with visual impairments. Partners provided and trained 20 KU students with visual impairments (mostly students in the Education Department) on using iPads and keyboards to read and create text for academic and everyday work. Eleven sets of devices and keyboards were also provided to Thika Secondary School for the Blind and 14 sets of devices and keyboards to Kibos Primary School for the Visually Impaired. Some of these students are featured in success stories of the partnership (Section XVIII). Using the iPad, visually impaired students are now more mobile, submit assignments on time, download information from email and read notes more easily due to the magnifying function. According to the students, the iPad has become their "helper", and has improved access to learning opportunities and enabled them to take online courses related to web design or easily upload notes from the iPad in soft copy from professors.

SU-KU partners extended the work of utilizing technology (iOS devices) to enhance educational opportunities for individuals with visual impairments at Kenyatta University and at two secondary schools. They built a solid core of collaborative partners around these activities and it is expected that their relationships with the National ICT Innovation and Integration Center (NI3C) and Thika School for the Blind will continue to develop beyond the close of the award.

Quantitative Impact

During the three-year period of the partnership, partners made good progress toward meeting or exceeding their annual targets. Because of USG support, partners met or surpassed their targets for more than half of their indicators. Section III provides a series of tables that shows comparisons of actuals to targets during the award period.

Through **professional development workshops**, 365 individuals enhanced their skills in the areas of curricula review, teaching large classes, using interactive whiteboards and technology in teaching, and the use of multimedia case studies in teaching. Partners implemented 23 different workshops (Table 1-Short Term Training). Eleven Kenyatta University faculty members spent two months at Syracuse University as part of the successful **scholar exchange** program observing classes, working on research projects, and using the SU library. During the three-year period of the award, faculty applied their skills and knowledge in teaching, teacher preparation and research within six subject areas: Languages, Math, Science, Creative Arts, Social Sciences, and Educational Technology.

Two KU faculty members benefitted from a “**sandwich degree**” training program in the U.S. (Table 1-Long Term Training) earning a Certificate of Advanced Study at SU. Participants improved their knowledge and skills in research methods and made progress on their dissertation proposals and data collection, enhancing their ability to complete their Masters and PhD studies at different institutions.

Partners planned and carried out six collaborative research studies in the following areas: (1) Technology Integration in Kenyan Secondary Schools, (2) Teaching Practice, (3) Literacy Benchmarks in Kenyan Secondary Schools, (4) Dealing with Large Classes in Kenyan Secondary Schools, (5) Mentoring Pre-Service Secondary Teachers, and (6) Supporting All Learners in Kenyan Secondary Schools.

Partners developed **policy briefs** based on their research studies and on data collected as part of their professional development workshops. These policy briefs will benefit KU administrators, Ministry of Education officials, other school of education deans, and secondary school principals toward improving teaching-learning in Kenya.

Partners revised three curricula for the Bachelor of Education in Science and Bachelor of Education in Arts undergraduate courses (traditional and school-based programs) and master’s courses. The partnership developed 19 **multimedia case studies** across six subject areas that include lessons filmed in Kenyan secondary classrooms toward enhanced experiential education.

The partnership’s key achievements were (a) 23 professional development workshops, (b) acquiring teaching materials, including laptops, internet modems, interactive whiteboards, iPads, digital cameras and science and language kits, (c) scholar exchanges benefitting 11 KU faculty members, (d) long term “sandwich” degree trainings for two KU faculty members, (e) six research studies, (f) three curricula review sessions that resulted in 52 curricula revisions, (g) collecting and analyzing data from 100 graduates and faculty members, (h) developing and piloting a mentoring program, (i) supporting at least 32 students with visual impairments with iPads (11 KU faculty and students, 11 Thika School students and 10 Kibos school students), (j) and 19 multimedia case studies including cases filmed in secondary schools. Annex II includes a full list of deliverables of the partnership.

In total, the partnership directly benefited 272 individuals (119 females) through short-term and long-term training, outreach activities, curricula reviews, and research.

Constraints and Opportunities

Partners experienced three major challenges during the three-year period of the award; (1) technology and connectivity difficulties, (2) securing a classroom learning laboratory, and (3) a lecturer strike. These challenges created delays in implementation and were resolved through continuous communication and collaboration among the partners. The long-standing relationship between Syracuse University and Kenyatta University (that extends back fourteen years) contributed to the success of the partnership in navigating contextual challenges. On a broader scale, the historical friendship helped in terms of understanding the development gaps within teacher education in Kenya. Partners plan to continue the work of their partnership beyond the close of the award.

Project Administration

HED/ACE worked closely with Syracuse and Kenyatta University partners toward quality and timely submission of quarterly financial expenditure reports, and annual and semi-annual implementation progress reports. HED provided guidance on issues such as developing monitoring and evaluation plans, budget realignment, and timely implementation of planned activities.

II. KEY ACHIEVEMENTS (QUALITATIVE IMPACT)

Objective 1: Strengthen the capacity of KU teacher education faculty members resulting in improved teacher preparation for the education sector in Kenya.

One of the partnership's key achievements was the involvement of almost all faculty members in the Department of Educational Communication and Technology in **professional development workshops**. Partners implemented 23 different workshops, and benefitting 234 individuals in Kenya (Table 1-Short Term Training). The major outcome from the professional development workshops were improved technology skills, improved pedagogical training, and improved research skills for the faculty members. These trainings also contributed to the development of skills of KU faculty in the areas of curricula review, teaching large classes, using interactive whiteboards and technology in teaching, and the use of multimedia case studies in teaching.

Partners implemented a successful **scholar exchange** (Table 1 – Short term Training) where 11 Kenyatta University faculty members spent two months at Syracuse University observing classes, working on research projects, and using the SU library. All of the participants attended professional conferences in the US and four of the faculty members presented a paper or poster at the conferences they attended. Participants increased knowledge within their areas of specialization and expanded their professional networks during the exchange.

Two KU faculty members benefitted from a “**sandwich degree**” training earning a Certificate of Advanced Study at SU. These faculty members were doctoral students at KU and other institutions at the time of their study. They took research methods courses and worked with SU faculty members on their dissertation proposals and data collection. This experience broadened their knowledge and offered a comparative perspective for their research.

A major objective of the partnership was to **strengthen the academic qualifications** of the teacher education faculty members, staff and students. Thirteen individuals associated with the Department of ECT enrolled in long-term training programs because of their involvement with the partnership project. Two faculty members completed doctoral degrees during the partnership project, while another is expected to defend his dissertation at KU in early 2015. A KU faculty member completed a one-year post-doctoral fellowship at the University of Witwatersrand in South Africa. Another KU faculty member will complete a Certificate of Advanced Study in December 2014 at SU and is currently analyzing her dissertation data. A part-time KU faculty member is in her second year of a doctoral program at SU. KU faculty member is in his third year of a doctoral program at the University of Florida. Additionally, six Kenyan students who graduated from the KU teacher education program completed graduate degrees at SU during the time of the partnership project, and five have enrolled in SU teacher education graduate programs during this time.

Objective 2: Strengthen the research capacity of the KU teacher education programs resulting in improved knowledge that produces more effective education.

A key partnership achievement was the development of six research studies. Partners planned and carried out six collaborative research studies in the following areas: (1) Technology Integration in Kenyan Secondary Schools, (2) Teaching Practice, (3) Literacy Benchmarks in Kenyan Secondary Schools, (4) Dealing with Large Classes in Kenyan Secondary Schools, (5) Mentoring Pre-Service Secondary Teachers, and (6) Supporting All Learners in Kenyan Secondary Schools. The data was analyzed and papers were written and submitted for publication. The major outputs from these collaborative research studies were the six papers (one from each research study) that have been submitted for publication. These include:

1. Instructional practices and challenges faced in English language teaching in secondary schools in Kenya: Implications for development of literacy benchmarks.
2. Teachers' and school administrators' preparedness in handling students with special needs in inclusive education.
3. From implementation to efficacy: Factors affecting Kenyan secondary teachers' technology integration.

4. Kenyan secondary teachers' and principals' perspectives and strategies on teaching and learning with large classes.
5. Improving student teaching for quality teacher preparation: A Kenyan university case.
6. Teacher mentoring for effective teacher training and development: The case of a developing country, Kenya.

Other research papers have also been written jointly by KU and SU faculty members and presented at international conferences and meetings. Some of the topics include (Annex II):

1. A collaborative project to build capacity through quality teacher preparation.
2. Kenyan secondary mathematics teachers' integration of technology in their teaching: Challenges and opportunities.
3. Using case studies to promote teacher learning.
4. Kenyan secondary teachers' integration of technology into their teaching practice.
5. Social media in the classroom: Implications for teaching, learning and school policies on cell phone use in schools.
6. Walking the talk and building bridges in the classroom through ICT: The way forward for pre-service training in Kenyan universities.
7. Identifying essential language and literacy skills for secondary school students learning through the medium of English language.
8. Searching for technological solutions towards the teaching of mathematics to learners who are deaf.
9. A model for pre-service teacher training on ICT-integration in teaching and learning at secondary school level.

Partners developed policy briefs based on their six research studies and on data collected as part of their professional development workshops. The major outputs for creating these policy briefs were the recommendations from the briefs that were presented to KU administrators and other stakeholders, including USAID-Kenya officials, Ministry of Education officials, other school of education deans, and secondary school principals. The policy briefs include:

1. Challenges and Recommendations Regarding Large Classes at University Level.
2. Challenges and Recommendations Regarding Supporting All Learners at University Level.
3. Findings and Recommendations on Technology Implementation and Integration in Kenyan Secondary Schools.
4. Challenges and Recommendations Regarding Teaching Large Classes in Kenyan Secondary Schools.
5. Findings and Recommendations Regarding Teaching Practice for Pre-service Teachers in Kenya.
6. Trainings and Recommendations on Technology Implementation and Integration for Faculty Members at University Level.
7. Trainings and Recommendations on Using Multimedia Case Studies in Preparing Pre-service Teachers.
8. Trainings and Recommendations on Supporting Students with Visual Impairments Using Assistive Technology.
9. Findings and Recommendations on Mentoring in Pre-service Teacher Training.
10. Findings and Recommendations on Literacy Norms in Kenyan Secondary Schools.
11. Findings and Recommendations on Supporting All Learners in Kenyan Secondary Schools.

Objective 3: Enhance the KU teacher education program resulting in improved instructional capacity.

At the beginning of the partnership program, partners collected survey data from 50 novice teacher graduates and 50 experienced teacher graduates from the KU teacher education program. After analyzing the data, partners learned how the graduates viewed their preparation to teach while at KU in key areas, such as integrating technology, teaching large classes, and supporting all learners. Partners utilized the data collected from the surveys to inform **curricula reviews** and topics for professional development workshops. Partners revised curricula for the Bachelor of Education in Science and Bachelor of Education in Arts undergraduate courses (traditional and school-based programs) and master's courses.

The partnership enhanced experiential education through the development of 19 **multimedia case studies** across six subject areas that include lessons filmed in Kenyan secondary classrooms. KU faculty members are using these multimedia case studies to help pre-service teachers reflect on experiences of secondary teachers' instructional practice. Mathematics and science education faculty members of KU were trained on the use of multimedia case studies in teacher preparation helping expand and more effectively utilize the case studies. The videos can also be more effectively used with pre-service teachers to reflect on teaching prior to going for their teaching practice. A SMART Board was launched and training was provided in the Department of Educational Communication and Technology. The launch covered training on the use of the SMART Board as a resource in teaching, drawing diagrams and flow charts, using animations, using software on the SMART Board to demonstrate processes or concepts that are otherwise difficult to conceptualize (e.g., blood circulation), using calculation formulas, and grouping objects. After the training, the Vice Chancellor was so impressed that she ordered ten more SMART Boards to be used on the KU main campus and satellite campuses.

Partners developed and piloted a **mentoring program** for pre-service teachers and cooperating teachers during Teaching Practice (May-July 2013). The major outcome from the pilot mentoring program was gaining information from both student teachers and cooperating teachers about their perspectives on the teaching practice process, and being able to use the information to restructure teaching practices.

The Department of ECT has become a hub of innovation and is known for the capacity that has been built, particularly in the use of **technology in teaching and strengthening technological skills** among faculty members. Several faculty members in the department have been asked to lead university-wide workshops on pedagogical strategies. A number of faculty members in the department report that they have changed their instructional approaches due to the capacity they have built through the **professional development workshops and the introduction of technology assisted teaching through the use of interactive SMART boards**. Following a demonstration of an interactive whiteboard in the Department of ECT, the KU Vice Chancellor purchased 10 more interactive whiteboards for classrooms at KU. Four faculty members' experiences (Beatrice Murila and Doris Njoka; David Khatete and Nicholas Twoli) are captured through two success stories (Section XVIII). Partners anticipate that the effects of their partnership project will continue to grow and be realized through the capacity that has been built in the faculty members in the Department of ECT.

Project funds provided each full-time faculty member with a laptop and an Internet modem to access resources and share information quickly and efficiently. In addition to the interactive whiteboard, partners modernized their materials through the purchase of iPads, iPad holders for use as document cameras, LCD projectors with laptops and external speakers, digital cameras, science and language kits, and many books and other curricular materials for use in teaching.

Partners collected a second round of data from KU faculty members toward the end of the project (June 2014) and discovered that capacity had been built in several key areas, including an increase from 80% (baseline) to 100% (end-of-project) of participants agreeing that technology supports teaching and learning, and an increase from 15.8% to 53.3% of participants agreeing that they are more confident in carrying out research.

Objective 4: Provide quality service to education stakeholders resulting in improved instruction in participating secondary schools.

A key partnership achievement was improving learning opportunities for individuals with visual impairments. Partners equipped three students with technology and trained them on how to use the technology in formal and non-formal learning environments. Partners provided and trained 20 KU students with visual impairments (mostly Education students) on using iPads and keyboards to read and create text for academic and everyday work. Eleven sets of devices and keyboards were also provided to Thika Secondary School for the Blind and 14 sets of devices and keyboards to Kibos Primary School for the Visually Impaired. Some of these students are featured in success stories of the partnership (Section XVIII). Using the iPad, visually impaired students are now more mobile, submit assignments on time, download information from email and read notes more easily due to the magnifying function. According to the students, the iPad has become their "helper", and has improved access to opportunities. It has also enabled some of the students to take online courses related to web design and allowed them to easily

upload notes from the iPad in soft copy from professors. The students and teachers have gained access to education and gained independence in their lives because of the **outreach activities**.

Partners developed and strengthened relationships with stakeholders throughout the three-year period of performance. Partners held two meetings with stakeholders, one in February 2012 and one in July 2014. At the February 2012 meeting, partners introduced their project objectives, and in July 2014, partners reported on their accomplishments and received feedback for future growth. Partners collaborated with the groups below during the award period.

- Government: National ICT Innovation and Integration Center (NI3C), Directorate of Quality Assurance and Standards, USAID-Kenya, Ministry of Education, Kenya Institute of Curriculum Development.
- Education Institutions: Kenyatta University Disability Services Office, Thika School for the Blind, Kibos School for the Visually Impaired, Mount Kenya University, University of Nairobi, Loreto Kaimbu School, Ngara Girls School, Kiambu High School.

The relationships established with secondary schools and the government institutions will contribute toward sustaining the efforts of improving teacher preparation and support to visually impaired students in Kenya.

Lessons Learned

Inclusive Capacity Building: One key lesson learned was to involve all members of the unit at KU in program planning and implementation. When partners planned and implemented professional development workshops or made procurement decisions, they realized that in order for them to have an impact on the department and to build real capacity, they needed to have as many faculty members involved as possible. The professional development workshops were much more effective when partners engaged faculty in the selection of topics and requested feedback after the workshops ended. Partners learned that in order to transfer capacity from the workshop into the classroom, instructors needed time to reflect on, plan, and try out the new knowledge and skills acquired through the workshops.

Critical Role of Scholar Exchanges: Another key lesson learned was to engage individuals in activities at both partner universities. The scholar exchanges were a great example of activities that benefited host country individuals. The KU scholars that visited SU observed classes, visited schools, attended research methods courses, made use of the library, and participated in professional conferences in their subject areas. The scholars expanded their professional network and enhanced their research. The scholar exchanges that brought SU scholars to KU allowed them to learn more about the teacher education context in Kenya, and to work on ways to sustain the partnership.

Dedicating time for Research: In the area of research, a key lesson partners learned was to set aside dedicated periods to complete data analysis and writing of papers for publication. Due to the demands of teaching, working with graduate students on their research, and committee responsibilities, if faculty members did not focus on data analysis and writing, it did not get done.

Value of technology for visually impaired: Partners also learned about the value of assistive technology for students with visual impairments. Students with VI can access educational materials and can be much more independent with devices such as iPads and keyboards. The students' stories that were captured through three success stories demonstrate the great capacity that was built through the provision of the right tools and training.

III. ACTIVITY PROGRESS (QUANTITATIVE IMPACT)

Structured around the partnership's M&E plan, this section examines the partnership's achievements, and presents data supporting progress toward achievement of the targets for each indicator. Results are presented based on performance against the partnership's targets for Higher Education Standard Indicators. Partners added several custom indicators during the second year of the partnership. Data in this report is based on annual and semi-annual reports, a final report (Attachment A) and success stories that were submitted by partners throughout the three-year period of implementation.

During the last two years of the partnership, HED utilized results-based management principles and a management information system (Partnership Results and Information Management Engine, or PRIME) to manage the performance of higher education partnerships. The HED reporting system, therefore, became more systematized and robust, in the second year of the partnership performance period, with data verification and substantiation of documents supporting data. The partnership's M&E plan and reporting in FY11 was not systematized affecting the quality of data and reports. The first half of the performance period, the partnership has been affected by several changes in USAID standard indicators and their definitions.

Disaggregated data for all activities was not available. Furthermore, for several activities under outreach and short-term training, individuals may have been counted more than once.

TABLE I: PERFORMANCE DATA TABLES FOR STANDARD INDICATORS

OUTREACH: Number of higher education institution outreach / extension activities in the host country community						
UNIT	DISAGGREGATE BY: Location, event, date and gender					
	Geographic Location	Activity Title	Date	W	M	Subtotal
Number of outreach activities	Kenyatta University	1. Joint Stakeholders Meeting between two HED partnerships-Syracuse-Kenyatta and Colorado State University-University of Nairobi.	Feb. 10, 2012	N/A	N/A	25
	KU Department of ECT	2. Two-week outreach for individuals with visual impairments.	June 2012	6	4	10
	N13C	3. A workshop at N13C on the use of iPads in education.	Jan. 3, 2013	3	11	14
	KU Department of ECT	4. A workshop with KU students and staff on the use of iPads in education.	Jan. 2 and 4, 2013	7	9	16
	Thika School for the Blind (near Nairobi)	5. Outreach training at Thika School for the Blind on iOS mobile devices to support learning for people with visual impairments.	July 4, 2013	7	9	16
	Kibos School for the Blind (near Kisumu)	6. Outreach training at Kibos School for the Visually Impaired on using iOS mobile devices to support learning for people with visual impairments.	July 15, 2013	8	12	20
	KU Department of ECT	7. Outreach training for four KU students with visual impairments to upgrade their IPod equipment.	June 29, 2013	4	0	4
	KU Department of ECT	8. Outreach training for the launching of the SMART Board in the Department of Educational Communication and Technology.	May 8, 2013	15	12	27

KU Department of ECT	9. Mentoring workshop held for host teachers and student teachers who would participate in the mentoring program pilot.	May 24, 2013	18	18	36
NI3C	10. Orientation training at NI3C for using the assistive technology features of an iPad mini to support persons with visual impairments.	Jan. 3, 2014	1	4	5
Kenyatta University	11. Training of Kenyatta University Students with Visual Impairments on iOS technology.	Jan. 7 and 9, 2014	3	3	6
Thika School for the Blind	12. Training of students and teachers at Thika School for the Blind on usefulness of iOS technology.	Jan. 10, 2014	5	5	10
Kibos School for the Visually Impaired	13. One-day workshop at Kibos School for the Visually Impaired.	June 17, 2014	4	7	11
Thika School for the Blind	14. One-day workshop at Thika School for the Blind.	June 20, 2014	6	8	14
Kenya Institute of Curriculum Development	15. Stakeholder meeting at the Kenya Institute of Curriculum Development.	July 2, 2014	14	12	26

Results:

Baseline	FY12 (October 1, 2011- September 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
N/A	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	2	2	1	7	6	6	9	15

SHORT-TERM TRAINING: Number of host-country individuals (faculty and / or teaching staff, students, and administrative / other staff) affiliated with the host-country institution who completed short-term training programs

UNIT Number of	DISAGGREGATE BY: Location, event, date and gender							
	Geographic Location	Activity Title	Date	Time	W	M	Subtotal	

host country individuals trained	KUCC	Teaching Large Classes Workshop	October 13, 2011	6 hrs.	9	13	22*
	KUCC	Supporting All Learners Workshop	November 24, 2011	3 hrs.	10	12	22*
	National ICT Innovation and Integration Center (NI3C)	Technology Integration in Teaching Workshop	January 10, 2012	6 hrs.	12	12	24*
	KU Department of ECT	Basic Technology Workshop	June 5, 2012	3 hrs.	6	6	12
	KU Department of ECT	Pick-a-Topic Workshop	June 6, 2012	3 hrs.	3	5	8
	KU Computer Lab	Technology Integration in Teacher Education Workshop	June 7, 2012	6 hrs.	9	7	16
	KU Department of ECT	Using Tablet Technology in Instruction Workshop	June 11, 2012	3 hrs.	8	7	15
	KU Department of ECT	Developing a Web Presence in Online Teaching and Learning	June 11, 2012	3 hrs.	6	2	8
	KU Department of ECT	Universal Design Workshop	June 12, 2012	3 hrs.	8	2	10
	KU Department of ECT	Online Learning Workshop	June 13, 2012	3 hrs.	8	6	14
	KU Department of ECT	Creating Accessible Media for Use in Teaching Workshop	June 14, 2012	3 hrs.	6	2	8
	Syracuse University, NY, USA	Two-Month Scholar Exchange for KU faculty at Syracuse University	July 2012		4	7	11
	KUCC	Designing Effective Presentations Workshop	January 7-9, 2013	18 hrs.	11	16	27
	KU Department of ECT	Using Multimedia Case Studies in Preparing Teachers Workshop	June 18 and June 27, 2013	12 hrs.	1	5	6
	KU Department of ECT	Introduction to SurveyMonkey™ Workshop	July 2, 2013	6 hrs.	11	6	17*
	KU Department of ECT	Using Excel in Teaching Workshop	July 3, 2013	3 hrs.	9	5	14*
	KU Department of ECT	Using an Interactive Whiteboard in Teaching Workshop	July 3, 2013	3 hrs.	9	5	14*
KU Department of ECT	Quantitative Research Design Workshop	July 8-9, 2013	6 hrs.	9	8	17*	

	KU Department of ECT	Inclusive Education Workshop	July 8-9, 2013	6 hrs.	10	9	19*
	KUCC	Curriculum Review for Master's Courses Workshop	Nov. 19, 2013	6 hrs.	4	12	16
	KU Department of ECT	Data Analysis and Writing Workshop	Jan. 6-10, 2014	24 hrs.	2	6	8
	KU Department of ECT	Active Learning Strategies Workshop	June 3-5, 2014	18 hrs.	20	24	44
	KU Department of ECT	Data Analysis and Writing Workshop	June 23-27, 2014	30 hrs.	3	6	9
	KU Department of ECT	Follow-up Workshop on Multimedia Case Studies Workshop	June 30, 2014	3 hrs.	0	4	4

*Numbers reported in substantiating documentation were different from those reported in the PRIME database. Numbers have been updated to match documentation.

Results:

Baseline	FY12 (October 1, 2011-September 30, 2012)		FY13 (October 1, 2012-September 30, 2013)		FY14 (October 1, 2013-September 30, 2014)		End of Partnership	
N/A	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	38	170*	25	114*	24	81*	87	365*

LONG-TERM TRAINING ENROLLED: Number of host-country institution faculty and/or teaching staff who enrolled in long-term training programs for qualifications strengthening

UNIT	DISAGGREGATE BY: Location, event, date and gender					
	Geographic Location	Activity Title	Date	W	M	Subtotal
Number of host country individuals trained		KU faculty members from the Dept. of ECT enrolled in doctoral programs: Helen Amunga, Abbey Chokera. KU faculty member enrolled in Certificate of Advanced Study: Agnes Wanjau.	FY13	2	1	3
		Newly enrolled KU faculty member	FY14	1	0	1

		from the Dept. of ECT enrolled in a doctoral program: Stella Rwanda. Continued enrollment for Abbey Chokera and Agnes Wanjau.				
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Results:

Baseline	FY12 (October 1, 2011-September 30, 2012)		FY13 (October 1, 2012-September 30, 2013)		FY14 (October 1, 2013-September 30, 2014)		End of Partnership	
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	2	0	0	3	3	1	5	4

LONG-TERM COMPLETED: Number of host-country individuals (faculty and/or teaching staff, students, and administrative / other staff) affiliated with the host-country institution who completed long-term training programs for qualifications strengthening

UNIT	DISAGGREGATE BY: Location, event, date and gender					
	Geographic Location	Activity Title	Date	W	M	Subtotal
Number of host country individuals that completed training	Syracuse University, NY, USA	Michael Waititu, faculty member at KU in the Dept. of ECT participated in a “sandwich degree” at SU and completed a Certificate of Advanced Study in Teaching and Curriculum in August 2012.	August 2012		1	1
	Syracuse University, NY, USA	Bernard Mugo, faculty member at KU in the Dept. of ECT participated in a “sandwich degree” at SU and earned a MS degree in Teaching and Curriculum in August 2012. He finished his Doctorate degree at KU in June 2013.	August 2012 and June 2013		1	1
	Kenyatta University, Nairobi	Ms. Inviolata Sore, project administrator, completed a MS degree in Teaching and Curriculum with a specialization in special education.	August 2013	1		1

	India	KU faculty member Helen Amunga completed a Ph.D. program in India and has returned to the Dept. of ECT.	June 2014	1		1
	South Africa	KU faculty member Marguerite Miheso-O'Connor completed a research post-doc at the University of Witswaterand in South Africa and has returned to the Dept. of ECT.	June 2014	1		1
	Syracuse University, NY, USA	KU student Grace Orado completed a Ph.D. in Science Education at Syracuse University.	May 2014	1		1
	Syracuse University, NY, USA	KU student Leonard Kamau completed a Ph.D. in Mathematics Education at Syracuse University.	May 2014		1	1

Results:

Baseline	FY12 (October 1, 2011- Septemeber 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	0	2	0	2	3*	4	3*	7

*FY14 target for this indicator was not set appropriately. It was indicated as 3000 instead of 3.

ACCESS POLICIES: Number of new or improved policies and/or procedures that supported increased access of underserved and/or disadvantaged groups to tertiary education programs

UNIT	DISAGGREGATE BY: Location, event, date and gender			
	Geographic Location	Activity Title	Date	Subtotal
Number of new/improved policies	Kenyatta University	Policy brief on supporting KU students with visual impairments through assistive technology.	FY14	1

Results:

Baseline	FY12 (October 1, 2011- September 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
N/A	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	0	0	0	0	0	1	0	1

RESEARCH-JOINT: Number of U.S. - host country institution joint research projects

UNIT	DISAGGREGATE BY: Location, event, date and gender			
	Geographic Location	Activity Title	Date	Subtotal
Number of joint research projects	Kenyatta University, Nairobi	Teaching practice research examining (1) student teachers' perceptions of their preparation for and support during teaching practice, and (2) mentor teachers' perceptions of their student teachers' preparation for teaching practice. 5 KU/2 SU	FY12 Q1-Q2	1
	Kenyatta University, Nairobi	Research focusing on examining teachers integrating technology into their classroom practice. 5 KU/ 2 SU	FY12 Q1-Q2	1
	Kenyatta University, Nairobi	Research focusing on supporting all learners and accommodating learners with special needs. 5 KU/ 1 SU	FY12 Q1-Q2	1
	Kenyatta University, Nairobi	Research focusing on how secondary school teachers deal with large classes. 5 KU/2 SU	FY12 Q1-Q2	1
	Kenyatta University, Nairobi	Research examining student teacher, cooperating teacher, principal, and area supervisor perceptions of the current KU teaching practice experience.	FY12 Q3-Q4	1

Kenyatta University, Nairobi	Research examining Kenyan secondary teachers' integration of technology into their classroom practice.	FY12 Q3-Q4	1
Kenyatta University, Nairobi	Research on establishing English language norms at the secondary level.	FY12 Q3-Q4	1
Kenyatta University, Nairobi	Teaching practice research examining (1) student teachers' perceptions of their preparation for and support during teaching practice, and (2) mentor teachers' perceptions of their student teachers' preparation for teaching practice.	FY13	1
Kenyatta University, Nairobi	Research focusing on examining teachers integrating technology into their classroom practice.	FY13	1
Kenyatta University, Nairobi	Joint research looking at literacy benchmarks in secondary Kenyan curriculum and classrooms.	FY13	1
Kenyatta University, Nairobi	Research focusing on how secondary school teachers deal with large classes.	FY13	1
Kenyatta University, Nairobi	Research focusing on supporting all learners and accommodating learners with special needs.	FY13	1
Kenyatta University, Nairobi	Joint research examining the process of mentoring student teachers through a pilot mentoring program.	FY13	1
Kenyatta University, Nairobi	Data analysis and writing of three research studies--Technology Integration, Teaching Practice, and Literacy Benchmarks.	January 2014	3
Kenyatta University, Nairobi	Data analysis and writing of three	June 2014	3

		research studies-- Teaching Large Classes, Mentoring, and Supporting All Learners.		
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Results:

Baseline	FY12 (October 1, 2011- Septemeber 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
N/A	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	6	7	4	6	0	6	10	19

RESEARCH APPLIED, REPLICATED, TAKEN TO MARKET: Percent of research initiatives whose findings have been applied, replicated, or taken to market

UNIT	DISAGGREGATE BY: Location, event, date and gender			
Percent of research findings applied	Geographic Location	Activity Title	Date	Subtotal
	Kenyatta University, Nairobi	Data sets of research studies that were completed and the data applied to inform professional development plans and revisions to curricula.	FY12	2/6 data sets

Results:

Baseline	FY12 (October 1, 2011- Septemeber 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
N/A	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	0%	33%	50%	0%	100%	0%	100%	33%

CURRICULA REVISED: Percent of curricula newly developed and/or revised with private and/or public sector employers' input or on the basis of market research

UNIT	DISAGGREGATE BY: Location, event, date and gender			
	Geographic Location	Activity Title	Date	Subtotal
Percent of Curricula revised	Kenyatta University, Nairobi	Curriculum revised through the Dept. of ECT following data collected from graduates of the programs. 21 curricula revised.	FY12	21/21
	Kenyatta University, Nairobi	Curricula for the Master's level courses--31 curricula were revised based on data from surveys from graduates of the program, as well as capacity built through professional development workshops.	FY14	31/31

Results:

Baseline	FY12 (October 1, 2011- Septemeber 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	30%	100%	0%	0%	67%	100%	100%	100%

EXPERIENTIAL EDUCATION: Percent of academic certificate and/or degree programs supported through the partnership that include new and/or enhanced experiential and/or applied learning opportunities

UNIT	DISAGGREGATE BY: Location, event, date and gender			
	Geographic Location	Activity Title	Date	Subtotal
Number of	Kenyatta University, Nairobi	Revised curricula in the Bachelor of Education in Science program.	FY13	(1/3)33%
	Kenyatta University, Nairobi	Revised course curricula for the Master's program.	FY14	(1/3)33%

Results:

Baseline	FY12 (October 1, 2011- Septemeber 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
N/A	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	0%	0%	100%	33%	67%	33%	100%	67%

BENEFICIARIES DIRECT: Number of Direct Beneficiaries

UNIT	DISAGGREGATE BY: Location, event, date and gender					
	Geographic Location	Activity Title	Date	W	M	Subtotal
Number of direct beneficiaries	Nairobi, Kenya	FY12 Total Beneficiaries	October 1, 2011- September 30, 2012	20	22	42
	Nairobi, Kenya	FY13 Total Beneficiaries	October 1, 2012- September 30, 2013	38	43	81
	Nairobi, Kenya	FY14 Total Beneficiaries	October 1, 2013- September 30, 2014	61	88	149

Results:

Baseline	FY12 (October 1, 2011- Septemeber 30, 2012)		FY13 (October 1, 2012- September 30, 2013)		FY14 (October 1, 2013- September 30, 2014)		End of Partnership	
N/A	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
N/A	40	42	24	81	54	149	118	272

TABLE 2: PERFORMANCE DATA TABLE FOR CUSTOM INDICATORS

Custom Indicator Name	Fiscal Year 2012					Fiscal Year 2013					Fiscal Year 2014				
	Target from Annual Target Assessment	Actual: Semi-Annual Period 1	Actual: Semi-Annual Period 2	FY 2012 Total Actual	Cumulative Total Across All FY to Date	Target from Annual Target Assessment	Actual: Semi-Annual Period 1	Actual: Semi-Annual Period 2	FY 2013 Total Actual	Cumulative Total Across All FY to Date	Target from Annual Target Assessment	Actual: Semi-Annual Period 1	Actual: Semi-Annual Period 2	FY 2014 Total Actual	Cumulative Total Across All FY to Date
Number of Kenyatta University faculty members involved in joint research projects	15	12		12	12	15	11	10	21	33	13	13		13	46
Number of hours of KU faculty development achieved	450	348		348	348	432	390	498	888	1236	360	259	393	652	1888
Number of graduates teaching in dry lands area participating in survey	25	0		0	0	25	0	0	0	0	10	0	0	0	0
Number of principals of graduates teaching in a dry lands area participating in survey	10	0		0	0	10	0	0	0	0	4	0	0	0	0
Number of students on teaching practice in a dry lands area participating in the mentoring program	2	0		0	0	5	0	0	0	0	5	0	0	0	0
Number of in-service teachers teaching in a dry lands area participating in the mentoring program	2	0		0	0	5	0	0	0	0	5	0	0	0	0
Number of laws, policies, regulations, or guidelines developed or modified to improve equitable access to or the quality of education services						0		0	0	0	0	0	9	9	9
Number of teachers/educators/teaching assistants who successfully completed in-service training or received intensive coaching or mentoring with USG support						40		40	40	40	40	21	39	60	100
Number of textbooks and other teaching and learning materials (TLM) provided with USG assistance						0		20	20	20	15	8	20	28	48
Number of schools using Information and Communication Technology due to USG support						1		1	1	1	1	1	1	2	3
Number of host country faculty participating in professional development activities						40		40	40	40	40	21	39	60	100

IV. CONSTRAINTS AND OPPORTUNITIES

Technology and Connectivity Difficulties: Partners faced continual challenges related to slow Internet access on campus and a lack of Internet access off campus for faculty members. Many of the skills taught in the technology workshops could not be practiced or strengthened as a result. Partners addressed this challenge by purchasing laptops and USB modems for all full-time members of the faculty so that they would have access to computers all of the time as well as access to the Internet.

Delays in obligation of funds: Implementation of activities slowed down during the last quarter of FY13 due to some uncertainties and delays in receiving modifications for additional obligations of funds from USAID/Kenya. While partners originally envisioned a long-term collaboration, the inconsistencies in the funding scenario didn't lend itself to this type of planning. However, even under these circumstances, partners were proactive and responsive in planning and implementation of activities.

Securing a classroom-learning laboratory: A primary goal of the partnership was to create a learning laboratory, but it was very challenging to find a secure space that could house the high-tech computers and interactive whiteboard. Keeping the equipment secure was a priority; therefore, the equipment was ultimately placed in a space inaccessible to faculty or students, which defeated the purpose of the lab. Partners addressed this issue by engaging the Vice Chancellor in the discussion about securing a classroom space. The space was finally made secure in April-May 2014 and partners are hopeful that it will become a valuable resource for the department.

Lecturer strike: Due to a nation-wide university lecturers strike in March 2014, partners were unable to collect the data from fourth-year education students to see if revisions to their curriculum enhanced their preparation for teaching. Nor were partners able to collect data from Kenyatta faculty members to see if capacity had been built within their department. Partners re-focused energy in other activities to compensate for the lack of progress in these areas.

Revisions to USAID/HED Reporting Requirements and Templates: One major challenge was that USAID made several changes in the definition of standard indicators, causing a change to HED reporting requirements and templates part way through project implementation. It was difficult for partners to shift their targets and indicators in the middle of implementation and this made it very difficult to track the outputs and outcomes for the life of the project.

V. PERFORMANCE MONITORING

The partnership's M&E plan served as the basis for HED's analysis of partnership's achievements and progress in relation to its objectives, outcomes and outputs. Results are based on performance against the partnership's targets for Higher Education Standard Indicators and Custom Indicators. Partners added the Custom Indicators during the second year of the partnership and they are based on USAID Standard Foreign Assistance indicators.

During the last two years of the partnership, HED utilized results-based management principles and a management information system (Partnership Results and Information Management Engine, or PRIME) to manage the performance of higher education partnerships. The HED reporting system became more systematized and robust in the second year of the partnership performance period, with data quality verification (DQV) and substantiation of documents supporting data. During the DQV process, HED staff ensured that the data reported were complete and accurate. Data included quantitative information, qualitative information, and the substantiating documentation uploaded, for all partnership standard and custom indicators. HED also discussed with the partners whether or not they expected to meet their targets by the close of the partnership. Partners responded positively to this question and as evidenced in this report met or exceeded many of their targets.

The partnership's M&E plan and reporting in FY11 were subjected to changes in indicator definitions and not systematized affecting the quality of data and reports during the beginning of the partnership.

Over the three-year period of the partnership, HED/ACE worked closely with Syracuse and Kenyatta University partners toward quality and timely submission of quarterly financial expenditure reports and implementation progress reports. HED provided guidance on issues such as developing monitoring and evaluation plans, budget realignments, and timely implementation of planned activities. HED conducted field monitoring visits and produced follow-up reports to improve the effectiveness and efficiency of the partnership. During these field visits, HED worked with KU-SU teams, as well as the AORs, on developing or revising Results Frameworks and M&E plans, reviewing semiannual reports and subsequent year implementation plans, reviewing budget expenditures and developing realignments, identifying success stories. HED has also discussed progress and outcomes of implementation of project activities with KU faculty members and students at KU and two secondary schools that benefitted from the project.

VI. PROGRESS ON GENDER STRATEGY

During the life of the project, the partnership directly benefited 119 females (about 44% of total beneficiaries) through short-term and long-term training, outreach activities, curricula reviews, and research. Partners strived to have balance and representation from both genders in all activities.

Partners included gender in their strategic plan when discussing the continuum of a successful teacher candidate, “Candidates must demonstrate capacity to support learners in their classrooms (including gender, environmental factors, cultures, social factors, learning issues, etc).” Partners need to build on accomplishments of this project and their commitment to gender equity by developing a more comprehensive gender strategy, at the Department of Educational Communication and Technology (ECT) level.

VII. PROGRESS ON ENVIRONMENTAL MITIGATION AND MONITORING

This area is not applicable to this partnership.

VIII. PROGRESS ON LINKS TO OTHER USAID PROGRAMS

The partnership strived to link its program with other USAID initiatives on expanding educational opportunities for marginalized populations through their work with students with visual impairments. Partners worked extensively with Thika and Kibos secondary schools on strengthening learning opportunities for students with visual impairments through trainings of iOS technology. They also supported USAID education objectives by improving the quality of teacher preparations through better curricula and technology assistance in teacher education programs.

IX. PROGRESS ON LINKS WITH GOK AGENCIES

Education is a centerpiece of the Kenyan Government’s Vision 2030—its ambitious plan to transform Kenya into a middle-income country by 2030. The KU-SU partnership supported this vision by strengthening the education sector through quality teacher education.

Partners collaborated with the National ICT Innovation and Integration Center to orient the staff to the capabilities of the iPad mini in order for them to be able to support persons with visual impairments in using these devices. The National ICT Innovation and Integration Center was established under the Ministry of Education as a capacity development hub for effective use of ICT in education and training.

Through its work, pedagogic aspects of ICT integration were demonstrated and tested before use by teachers, students, education professionals, and the general public.

By the end of the three-year period of performance, partners had established a collaborative relationship with the Ministry of Education. One of their faculty committees met several times with officials from the Directorate of Quality Assurance and Standards to discuss teacher performance expectations and assessments. Additionally, Jacinta Kapiyo, Deputy Director of Education from the Kenya Ministry of Education gave remarks and participated in their stakeholder meeting in July 2014.

X. PROGRESS ON USAID FORWARD

Through this partnership, the capacity of Kenyatta University was strengthened. Partners contributed to the cornerstones of USAID Forward in the following ways.

Deliver results on a meaningful scale through a strengthened USAID

- Partners utilized a results-based management system that aligned implementation activities with their budget. Through monitoring and reporting, partners were held accountable for their actions.

Promote sustainable development through high-impact partnerships and local solutions

- Partners established long-term relationships that will continue beyond the close of the award. Partners regularly sought out new collaborative partners within the public and private spheres. During the three-year period of performance, partners collaborated with five government offices and eight educational institutions.

Identify and scale up innovative, breakthrough solutions to intractable development challenges

- Partners utilized innovative technologies at Kenyatta University and in their outreach activities by training individuals with visual impairments to use iOS devices (iPad mini) to create text and communicate through email.

XI. SUSTAINABILITY AND EXIT STRATEGY

The institutional partnership between Kenyatta University and Syracuse University is built on a solid foundation that dates back to 2000. Partners have strengthened their relationship over the years through a number of collaborative efforts. For example, 26 Kenyan students have completed or are completing degrees at SU in teacher education. Moreover, since July 2009, the Schools of Education at KU and SU have co-sponsored a bi-annual international conference on education hosted by KU (2009, 2011, 2013; planning is underway for 2015). Because of this history of collaboration, the prospects for sustainability are strong.

The partnership will continue beyond the close of the award due to the capacity that has been built among the faculty members in the Department of ECT. Many of the faculty members are making use of new skills and new knowledge they have gained through the partnership in their teaching, their research, and in their work with teachers. Because of their work in educating pre-service teachers, partners expect to see a stronger cohort of teachers entering the workforce. Partners anticipate that these teachers will be better prepared, which will result in increased learning among secondary students in Kenya, which in turn will result in students better prepared for college and university level learning, and a greater ability to contribute to the economic growth of the country.

Syracuse and Kenyatta partners recently renewed their Memorandum of Understanding and will continue to collaborate on the co-sponsored International Conference on Education in July 2015, and explore

ways to collaborate on research studies. They are seeking funding for projects that extend work accomplished and have considered ways to support faculty members in spending research leaves at the partner institutions. They plan to continue to work together on doctoral dissertation committees, and support qualified KU graduate students in doctoral studies at SU. Additionally, due to new emphasis in Kenya on the professional development of in-service teachers, KU has developed the Teacher Professional Development Center. The Center is under the leadership of two of the KU team members, Prof. Henry Ayot and Dr. Samson Ondigi. The Center has begun providing professional development activities for in-service teachers and principals coming to campus during school holidays.

Institutional capacity that is strengthened at Kenyatta will ensure more expanded research and outreach with their partners, Thika School for the Blind and Kibos School for the visually impaired. Through the training provided and resources procured for Thika and Kibos to improve educational opportunities for students with visual impairments, the schools will be able to carry on the work of the partnership.

Along with these plans, partners have a long-term goal of developing and establishing a model for teacher preparation and education that they will share with other universities in Kenya and other East African countries.

XII. GLOBAL DEVELOPMENT ALLIANCE

Not applicable.

XIII. SUBSEQUENT QUARTER'S WORK PLAN

This partnership closed on September 17, 2014. Partners followed an approved annual work plan between 2011-2014.

XIV. FINANCIAL INFORMATION

TABLE 3: BUDGET DETAILS

T.E.C.: \$1,305,175

Cumulative Obligated: \$1,305,105

Cumulative Expenditures*: \$1,301,768

Obligation	Approved cumulative budget/total obligated amount	Actual expenses through 09.17.2014	Interim balance of federal funding at award close
<i>Total: \$1,305,175</i>	<i>\$1,305,175</i>	<i>\$1,301,768</i>	<i>\$3,406*</i>
Salaries	\$55,726	\$48,650	\$7,076
Fringe Benefits	\$17,069	\$14,810	\$2,259
Travel	\$21,734	\$11,896	\$9,838
Consultants	\$14,344	\$1,902	\$12,442
Subawards	\$1,080,000	\$1,122,210	-\$42,210
Other Direct Costs	\$7,636	\$5,884	\$1,752
Sub-total Direct Costs	\$1,196,510	\$1,205,353	-\$8,843

Indirect Cost	\$108,664	\$96,415	\$12,249
Grand Total (Total Direct Costs + Indirect Costs)	\$1,305,175	\$1,301,768	\$3,406*

* **PLEASE NOTE:** Although the table indicates an unexpended balance of \$3,406 under this award, please note that this amount represents an interim balance since the FY14 final indirect costs rates are yet to be applied. Currently ACE/HED is operating with provisional indirect cost rates for FY14 as determined by USAID, its cognizant agency, per attached Negotiated Indirect Cost Rate Agreement (NICRA). The final FY14 indirect rates, which will be applicable to this award, are expected to be released by USAID during the summer of 2015. At that time, the final indirect rates will be applied to the award and billed to USAID.

BUDGET NOTES

Salaries	Salaries for this award were slightly under the total anticipated amount due to staff turnover.
Fringe Benefits	Fringe benefits are constant ratio against all salaries and wages and are determined by USAID, ACE/HED cognizant agency, per attached NICRA.
Travel	Travel expenses have been lowered than originally anticipated, partly due to the fact that consultants (for which travel provisions had been made in the budget) were not engaged at the level originally anticipated.
Consultants	Originally the budget predicted a more significant involvement of management consultants in this award. As activities were implemented, the engagement of consultants became less necessary, and eventually completely eliminated from the award.
Subawards	A subaward for a higher education partnership between Kenyatta University and Syracuse University was funded under this award. Originally the subaward was envisioned to be for \$1,080,000, but once ACE/HED realized savings with travel and consultants, it channeled those savings (\$42,210) into the subaward, to maximize the use of federal funding towards the accomplishment of the partnership activities.
Other Direct Costs	Total Other Direct Costs were slightly lowered than anticipated, mostly due to the cancellation of travel expenses, which in turn left unexpended funds with visas, immunizations, and international phone calls, all of which had been budgeted under Other Direct Costs.
Indirect Costs	Calculated per award conditions. Please see attached on Attachment II the current NICRA.

XV. ACTIVITY ADMINISTRATION

Personnel

The ACE/HED Program Officer for this award remained the same throughout the three-year period of the award; however, there was staff turnover at the Program Specialist level. In some instances, this resulted in under-expenditure of salaries. Managerial changes at this level did not negatively affect management of the higher education partnership.

Contract, Award or Cooperative Agreement Modifications and Amendments

The USAID/East Africa Regional Acquisition and Assistance Office administered three modifications to ACE/HED during the three-year award period. The purpose of the first modification (June 2011) was to incorporate three mandatory provisions per AAPD 11-01 and to change the reporting dates of the award. The purpose of the second modification (March 2013) was to extend the estimated completion date of the agreement from June 18, 2013 to September 18, 2013. The purpose of the third modification (October 2013) was to extend the completion date of the award by one year, increase the amount of the award by \$169,997 thereby increasing the award amount to \$1,305,175, revise the budget, and amend the program description for implementation during the extension period.

ACE/HED executed seven subaward modifications with this partnership during the three-year period of implementation. The purpose of the modifications ranged from budget revisions to extensions of the award agreement.

XVI. GPS INFORMATION

The partnership operates at the Kenyatta University campus in Nairobi and two secondary schools in the surrounding area.

XVIII. SUCCESS STORIES

1. Professional Development Workshops Provide Forum for Collegial Interactions and Pedagogical Discussions



Beatrice Murila and Doris Njoka have participated in all of the professional development workshops offered through the U.S. Agency for International Development-funded Higher Education for Development (HED) partnership between Kenyatta University and Syracuse University. This partnership project is focused on building capacity in quality teacher preparation. Most of the workshops have focused on teaching large classes, supporting all learners, integrating technology, which are three main areas of growth the faculty members in the Department of Educational Communication and Technology identified at the beginning of the project. “The workshops have been very helpful, especially the ones on IT,” Beatrice noted. “I

now know how to teach in a better way.”

Doris agreed and noted that she is more competent in teaching and more confident: “We were immersed in online teaching without much preparation. The project workshops have helped me to get comfortable interacting with my students online and having a teacher presence.”

Doris and Beatrice have incorporated many aspects from the professional development workshops into their teaching, including how to make better PowerPoint documents with visual images and minimal text, creating videos to post online on Moodle to introduce students to a course or a topic, strategies for actively engaging students in learning.

The KU-SU partnership project has provided all full-time faculty members in the department with laptops and Internet modems. “I had a personal laptop before and I was using the Internet, but it was very slow,” Beatrice stated. “With the modem, I can take my laptop to class and access the Internet.”

“The laptop I got through the project is lighter than my other one, and this one has a web cam. I was limited in some ways with my other laptop,” Doris noted.

Both Doris and Beatrice attest to the impact the professional development workshops have had on the department: “Those who trained are better teachers. We are able to teach now at a higher level; the discussions in the workshops have given us a better understanding of issues and strategies,” stated Beatrice. “I look forward to the workshops; I look forward to meeting my colleagues and talking about important issues.”

Doris noted that the Communication Skills course that she and Beatrice teach involves discussion, but “we were thinking that now with large classes we are limited. Through the workshops we were reminded that it still can work; we can still have interactivity in the lessons, even at a higher level, beyond what we had before with smaller numbers.”

Doris continued, “Through the project we gained a forum to interact among ourselves; we had time to discuss issues of pedagogy.” Beatrice agreed and noted, “When we go into small groups, it is helpful to listen to what each of us has written regarding how we have planned to implement the pedagogical strategies we been exposed to through the workshop.”

Doris recalled, “In Communication Skills that is something we used to do. We had meetings every two weeks to find out how each one of us was doing in our classes, but it was abandoned at some stage – as our classes grew in size, as we got more responsibilities. This project has given us time to talk with each other, and talk about our teaching. We need more of this.”

Photo caption: Doris Njoka and Beatrice Murila discuss how to implement an active learning strategy in a professional development workshop.

Photo Credit: Joanna Masingila

2. Changing the Perceptions of Others through Assistive Mobile Technology



Maring Ngitok is a Kenyatta University (KU) student from Samburu County. Dan Onyango is a Kenyatta University student from Kisumu County. Maring and Dan share several things in common: they are both preparing to be teachers, and they both became blind as a result of contracting German measles when they were young. Additionally, they are also both among 20 students with visual impairments at KU who have received assistive mobile technology – iPad minis and keyboards – through a U.S. Agency for International Development-funded Higher Education for

Development (HED) partnership between KU and Syracuse University (SU). An iOS device (iPod, iPad, or iPhone) can serve as a screen reader using a built-in function called Voiceover that reads aloud what is displayed on the screen, displays large or high contrast text (even magnifies print), recognizes and describes colors, and connects to the Internet via Wi-Fi or mobile networks. Additionally, there are a significant number of apps developed by and/or for people with visual impairment available on the iOS platform.

Maring and Dan noted that one of the biggest changes for them in using the mobile assistive technology has come in how other people have changed their perceptions of them as blind persons. Maring recalled that just after he had received his device in January 2014, he traveled with a group to the border of Samburu and Marsabit Counties to participate in boundary interviews with residents: “I was lucky because I had carried my iPad and keyboard. As the person was talking, instead of taking notes with my braille machine, I took notes on my iPad and emailed them. That changed everything. I used to take notes with my braille machine. The colleagues that I was with were wondering how is this happening. It was a surprise to many. They were used to seeing me using a braille machine. Now they saw me differently. It was far easier for me than for the others who were taking notes by hand. I had some data on my iPad so I emailed my notes to the person in charge and he was wondering, ‘How did you do that?’ People from my community are not used to seeing a blind person who can do something other than use a braille machine.”

Dan reported that he is very happy to have received an iPad mini: “I can’t read Braille for long; after 15 minutes I find myself sleeping on the dots.” Now Dan is able to have the screen reader on the iPad mini read all text to him. When he goes to class, he takes his iPad and keyboard and uses earphones, with one earphone in one ear, and listening with the other ear. Dan noted, “Other people want to know, ‘Is this what you are using? How does it work?’ During class, some of my classmates sat somewhere and took notes and I took notes with my iPad and keyboard. Then after the lecture, they came and said, ‘Now, let’s see what you have.’ We compared our notes and we found that my notes were more complete than their notes. I could type faster than they could write. They were very perplexed.” Like Maring, Dan found that other people’s perception of him changed once he had the mobile assistive technology: “The iPad opens people who are visually impaired to the world and brings the world to people who are visually impaired; it connects them to the world and connects the world back to them. The technology allows other people to see that we are able to do things for ourselves.”

Dan has started a blog (<http://clynsound.wordpress.com/>) to help persons with visual impairments on technology matters, and also has a website (<http://www.reverbnation.com/kinginocent/>) with original songs that he has written and recorded his voice on multiple tracks to add different parts. Others now see him as very competent in many areas of technology due to the assistive technology he has. Maring also noted that because he is able to participate in social media (e.g., Facebook, Twitter) that has helped him: “People can now identify with me socially; they see that I am just like them”.

Photo Caption: Dan Onyango and Maring Ngitok share how mobile assistive technology has changed their lives.

Photo Credit: Joanna Masingila

3. Concurrent Projects Provide Synergy for Implementing Video Lessons in Teacher Education



In April 2011, Kenyatta University science educators David Khatete and Nicholas Twoli began working with colleagues at Kenyatta University (KU) and at Syracuse University (SU) on a USAID-funded project focused on building capacity in teacher education through the Africa-U.S. Higher Education Initiative. Concurrently, the mathematics and science educators at KU and SU were awarded a grant through the HP Catalyst Initiative for supporting pre-service and in-service mathematics and science teachers in Kenya in integrating technology as a teaching and learning tool in their classrooms.

Through the USAID-funded project, team members created 19 multimedia case studies consisting of a video lesson filmed in a Kenyan secondary classroom, still photos, and facilitator questions. The multimedia case studies were created for use in subject methods courses so that pre-service teachers would have the opportunity to watch and reflect on experienced teachers practice before they went to the field for their own teaching practice.

David tried using one of these video lessons with a class of more than 130 students. “I used external speakers and projected the video on the screen,” David reported. “The students were highly interested in watching the lesson and they had a lot of points to discuss at the end of the video.” After seeing the active engagement of the students and the lively and meaningful discussion, David used more video clips with his classes.

Nicholas has also experimented with using video clips as ways of illustrating teaching practice. “We used video clips of teachers teaching with technology with 60 in-service teachers we are working with on the HP project,” Nicholas said. “We wanted them to see possibilities for how teachers were using technology to support student learning, and the video clips worked well.”

Both David and Nicholas agree that the synergy of the two projects combined to make efforts for both projects more valuable. “We used the video lessons that we created through the USAID project with teachers in the HP project,” David noted, “and when we saw how well this went, we started using the video lessons with our undergraduate students in the subject methods courses.”

“Having video lessons to use has opened up new possibilities for engaging pre-service and in-service teachers in thinking about teaching and learning,” said Nicholas. “We are learning a lot and enjoying the process.”

Photo Caption: David Khatete and Nicholas Twoli discuss plans for an upcoming workshop with in-service science teachers.

Photo Credit: Joanna Masingila

4. “I Don’t Avoid Going Any More; I Know I Can Now Contribute”: Gaining Competency Through Mobile Assistive Technology



Fatuma Mohamed is a Kenyatta University student who is studying Education. Fatuma has low vision, a visual impairment that makes it doing many things slower and harder for her. While Fatuma has some vision, she has to hold print very close to her face to read it, and

Through the U.S. Agency for International Development-funded Higher Education for Development (HED) partnership between Kenyatta University and Syracuse University, Fatuma is one of 20 students with visual impairments at Kenyatta University who has received an iPad mini and keyboard to use to read and create text. An iOS device (iPod, iPad, or iPhone) can serve as a screen reader using a built-in function called

Voiceover that reads aloud what is displayed on the screen, displays large or high contrast text (even magnifies print), recognizes and describes colors, and connects to the Internet via Wi-Fi or mobile networks. Additionally, there are a significant number of apps developed by and/or for people with visual impairment available on the iOS platform.

During breaks between semesters at Kenyatta University, Fatuma volunteered at a Non-governmental Organization (NGO). “I wanted to be involved in doing things to assist others,” Fatuma explained. “However, before I received my iPad and keyboard, I wasn’t able to do some of the things that I was asked to do, or it would take me a very long time because I couldn’t read quickly or very well.”

Fatuma started avoiding going to volunteer at the NGO because she was disappointed that she was not able to do all of the work that she was given. “After I received my iPad and keyboard, I was able to do all of the work and more that they wanted me to do,” Fatuma said with pride. Her supervisor was impressed with the change in her work and wondered what caused the change. Fatuma noted, “I showed my supervisor how I was able to type and hear what I was typing and go much faster than trying to read it visually. This device has made me a valued volunteer and I don’t avoid going anymore; I know I can now contribute.”

Photo Caption: Fatuma Mohamed talks about her experiences volunteering at a NGO.

Photo Credit: Joanna Masingila

5. Faculty Training Improves Kenyatta University's Integration of Technology in Teaching--Higher Education Institution Applies New Methodologies to Support All Learners



Bernard Mugo, a faculty member in the Department of Educational Communication and Technology at Kenya's Kenyatta University (KU) didn't question his level of expertise until he spent a year at Syracuse University (SU) in New York to enrich his doctoral studies in special education. "I used to say that I am knowledgeable in technology in my department before I left for SU but I soon found out that I did not have any idea about interactive whiteboards or online teaching," said Mugo, who teaches courses on educating children with disabilities. Discovering and knowing how to integrate technology in teaching and learning at Kenyatta University was a challenge because of the limited training in new technologies. Courses there lacked the visually engaging qualities of multimedia

and interactivity of online tools.

After completing his Certificate of Advanced Study course in Teaching and Curriculum at Syracuse University, as part of a USAID project, Mugo improved his English, learned to research using the Internet and developed course preparation materials. The project, managed by Higher Education for Development, allowed him to conduct part of his doctoral studies at Syracuse University while still enrolled at Kenyatta University. "Due to this exposure, I have now started helping other KU faculty members in integrating techniques in teaching and synchronizing information with assistive technology," he said.

Trainings are changing how teacher education faculty members at Kenyatta University instruct their students. In total, 40 faculty members have participated in professional development workshops to gain new skills for the improvement of courses and teaching methodologies. They have learned how to support all students and manage large classes through the use of technologies such as e-learning platforms, Internet resources, multimedia case studies, and simulations.

In addition, 11 lecturers spent two months at Syracuse University observing classes, learning more about how to integrate technology into classrooms, and participating and presenting at a conference in the United States. Faculty members now discuss methods to increase interactivity, even with the current configuration of large classes, as well as how to help all students through the integration of technology.

"I have never applied integration of technology in teaching and have never used simulations before this training," said Michael Waititu, a faculty member at Kenyatta University who teaches physics education courses and also spent a year at Syracuse University in the certificate program. "I was able to gain new knowledge in research methods and technology and was able to develop and defend my Ph.D. proposal successfully," he added. Waititu is collecting data for his dissertation study on gender equity in Kenyan secondary physics teaching. "I am particularly excited to use video clips from multimedia case studies filmed in Kenyan secondary classrooms in the methods course I teach to prepare physics teachers," Waititu said.

Michael Waititu, faculty member at Kenyatta University, discusses using multimedia case studies in preparing teachers with Peter Rugano, doctoral student at Syracuse University.

Photo: Joanna Masingila, Syracuse University

6. Visually Impaired Students Find Independence Through Mobile Devices



SUCCESS STORY

Visually Impaired Students Find Independence Through Mobile Devices Assistive Technology in the Classroom Expands Learning and Teaching Opportunities

Syracuse University/Kenyatta University



Photo courtesy of Joanna Masingila

Sammy Luvonga, who lost his sight as a child, uses a computer with a built-in function called VoiceOver to listen to notes or electronic documents being read to him.

“One of the court executives asked me, ‘How are you able to do your reports?’ and I explained to him how I am using the iPad and he told me ‘You are an able man,’ and I am because of this assistive technology.”

— Silas Opanga, law student at
Kenyatta University

Before June 2012, when visually impaired students Sammy Luvonga and Silas Opanga attended classes at Kenyatta University (KU), they would bring a bulky manual braille machine and expensive paper they purchased themselves. The scarcity of braille machines on campus and academic materials in Braille, as well as difficulty in getting materials converted to Braille, were huge obstacles.

In the summer of 2012, how Silas and Sammy accessed text changed. They were among a group of four visually impaired KU students to receive an iPod® mobile digital device and a wireless keyboard through a U.S. Agency for International Development-funded, Higher Education for Development managed-project between KU and Syracuse University (SU) focused on improving teacher education for all learners using technology

Today Sammy and Silas are among KU’s approximately 50 visually impaired students who have access to computers installed with special software called a screen reader. KU’s library has a limited number of these computers and headphones where students can access text in electronic versions via the Internet or other electronic formats such as a PDF. “It was difficult to study for exams because we had to have someone read lecture notes to us,” said Silas, a fourth-year law student who became blind at the age of 16. Sammy, a fourth-year education student who lost his sight as a child added, “It was also difficult to think of how we would easily prepare notes for teaching classes during teaching practice and when we become teachers.”

An iOS-supported device, like iPod or iPad® mobile digital devices, serves as a screen reader using a built-in function called VoiceOver that reads aloud what is displayed on the screen, displays large or high contrast text, magnifies print, and recognizes and describes colors.

Within a few days of receiving the devices, the KU students were reading and creating documents, checking and sending emails, uploading documents to a learning management system, listening to music, and creating Facebook accounts. “Having the iPod gave me independence. I didn’t have to have someone read notes to me. I could listen to notes being read by my iPod or listen to the lecture that I audio recorded,” said Silas.

In January 2013, the group of four students replaced the iPod mobile digital devices with the iPad mini™ mobile digital devices and trained 10 more KU students with visual impairments to use iPad minis and keyboards. Later that same year, Sammy used his iPad mini and keyboard to teach students at the Kibos School for the Visually Impaired near Kisumu. “I prepare my notes and scroll through them during class using the keyboard, and listen to the notes using headphones. My students think I have lots of books on my iPad because I find all the information I need there,” explained Sammy. During the same time period, Silas completed an educational attachment (internship) at the Thika Law Courts. He explained how the mobile device is invaluable for his work, “For my judicial

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ANNEXES & ATTACHMENTS

Annex I: Schedule of Future Events

This partnership closed on September 17, 2014. A schedule of future events is not applicable.

Annex II: List of Deliverable Products

1. Policy Briefs

- *11-01-KUSU*: Challenges and Recommendations Regarding Large Classes at University Level
- *12-01-KUSU*: Challenges and Recommendations Regarding Supporting All Learners at University Level
- *14-01-KUSU*: Findings and Recommendations on Technology Implementation and Integration in Kenyan Secondary Schools
- *14-02-KUSU*: Challenges and Recommendations Regarding Teaching Large Classes in Kenyan Secondary Schools
- *14-03-KUSU*: Findings and Recommendations Regarding Teaching Practice for Pre-service Teachers in Kenya
- *14-04-KUSU*: Trainings and Recommendations on Technology Implementation and Integration for Faculty Members at University Level
- *14-05-KUSU*: Trainings and Recommendations on Using Multimedia Case Studies in Preparing Pre-service Teachers
- *14-06-KUSU*: Trainings and Recommendations on Supporting Students with Visual Impairments Using Assistive Technology
- *14-07-KUSU*: Findings and Recommendations on Mentoring in Pre-service Teacher Training
- *14-08-KUSU*: Findings and Recommendations on Literacy Norms in Kenyan Secondary Schools
- *14-09-KUSU*: Findings and Recommendations on Supporting All Learners in Kenyan Secondary Schools

2. Multimedia Case Studies

These multimedia case studies are located on a website, *Multimedia Case Studies in a Kenyan Context: Reflections on Teaching and Learning in Kenyan Classrooms*, and can be accessed at: <http://kenyammcs.syr.edu>, with a password of KUcases\$.

Biology Cases

1. *Cell Division* — This approximately 34-minute video shows a biology lesson on cell division and was filmed at Kakamega High School on July 5, 2012. The teacher engaged the students in learning about the content using a PowerPoint presentation.
2. *Respiration* — This approximately 10-minute video shows parts of a biology lesson on respiration and was filmed at Kenya High on September 20, 2011. The teacher used a computer and LCD projector to show notes and illustrations from a CD as she discussed the ideas with the students.
3. *Transport in Plants* — This approximately 7-minute video shows parts of a biology lesson on transport in plants and was filmed at Nairobi School on September 28, 2011. The teacher used a laptop computer and LCD projector to show notes and illustrations from a CD while she discussed the ideas with the students.

Chemistry Cases

1. *Classification of Substances* — This approximately 38-minute video shows a chemistry lesson on classification of substances and was filmed at Kakamega High School on July 5, 2012. The teacher engaged the students in learning about the content using a PowerPoint presentation and examples of naming from everyday life.
2. *Electrolytes and Non-electrolytes* — This approximately 25-minute video shows parts of a chemistry lesson on electrolytes and non-electrolytes and was filmed at Kenya High on October 12, 2011. The teacher used a computer and LCD projector to show notes and illustrations from several CDs as she discussed the ideas with the students.
3. *Titration* — This approximately 31-minute video shows a chemistry lesson on titration and was filmed at Nairobi School on January 11, 2012. The teacher engaged the students in a laboratory lesson in which they learned and practiced titration.

English Cases

1. *Listening and Speaking* — This approximately 33-minute video shows an English lesson on listening and speaking and was filmed at Nairobi School on January 11, 2012. The teacher used a whole class discussion and a student skit as instructional methods during the lesson.
2. *Oral Literature* — This approximately 26-minute video shows an English lesson on oral literature and was filmed at Kakamega High School on July 4, 2012. The teacher engaged the students in learning about the content using a PowerPoint presentation.

German Cases

1. *Pronunciation* — This approximately 22-minute video shows a German lesson on pronunciation and was filmed at Chavakali High School on July 6, 2012. The teacher used a computer and SMART Board to engage the students in learning some German vocabulary.

Mathematics Cases

1. *Formulae* — This approximately 25-minute video shows a mathematics lesson on formulae and was filmed at Chavakali High School on July 6, 2012. The teacher engaged the students in collaborative work in which they practiced solving an equation in terms of a particular variable.
2. *Histograms* — This approximately 7-minute video shows parts of a mathematics lesson on histograms and was filmed at Kenya High on September 20, 2011. The teacher used a computer and LCD projector to show notes and illustrations from a CD as she discussed the ideas with the students.
3. *Latitude and Longitude* — This approximately 33-minute video shows a mathematics lesson on latitude and longitude and was filmed at Kakamega High School on July 4, 2012. The teacher engaged the students in learning about the content using a PowerPoint presentation and physical visual aid.
4. *Law of Sines* — This approximately 7-minute video shows parts of a mathematics lesson on the Law of Sines and was filmed at Nairobi School on September 28, 2011. The teacher used a computer and LCD projector to show notes and illustrations as he discussed the ideas with the students.
5. *Pi* — This approximately 16-minute video shows a mathematics lesson on pi and was filmed at Shitochi Secondary School on July 5, 2012. The teacher used a video clip to engage the students in thinking about what is pi and what is a ratio.

Physics Cases

1. *Cathode Ray Tubes* — This approximately 30-minute video shows a physics lesson on cathode ray tubes and was filmed at Chavakali High School on July 6, 2012. The teacher engaged the students in learning about cathode ray tubes using physical examples.
2. *Electrical Circuits* — This approximately 29-minute video shows a physics lesson on electrical circuits and was filmed at Shitochi Secondary School on July 5, 2012. The teacher used a PowerPoint document to engage students in thinking about circuits and the flow of electrons.

3. *Lens Formula* — This approximately 33-minute video shows a physics lesson on the lens formula and was filmed at Kakamega High School on July 4, 2012. The teacher engaged the students in learning about the content using a PowerPoint presentation with diagrams.
4. *Linear Motion* — This approximately 24-minute video shows parts of a physics lesson on linear motion and was filmed at Kenya High on October 12, 2011. The teacher used a computer and LCD projector to show notes and illustrations as she discussed the ideas with the students.
5. *Simple Machines* — This approximately 30-minute video shows a physics lesson on simple machines and was filmed at Kakamega High School on July 4, 2012. The teacher engaged the students in learning about the content using a PowerPoint presentation.

3. Resource Packets

- 11-01-KUSU: Workshop on Teaching and Learning in Large Classes, October 2011
- 11-02-KUSU: Workshop on Supporting All Learners, November 2011
- 12-01-KUSU: Workshop on Integrating Technology, January 2012
- 12-02-KUSU: Technology Training Workshops, June 2012
- 13-01-KUSU: Workshop on Making Effective Presentations, January 2013
- 13-02-KUSU: Professional Development Workshops on Technology Integration, Research Design, and Inclusive Education, July 2013
- 14-01-KUSU: Workshop on Active Learning Strategies, June 2014

4. Videos of Workshop Presentations

- Integrating ICTs into Teaching, June 2012
- Introduction to the iPad, June 2012
- Online Learning and Social Presence, June 2012
- Universal Design for Learning, June 2012
- SMART Board, July 2012
- Document Camera and Excel, July 2013
- SMART Board, July 2013
- Introduction to SurveyMonkey™, July 2013
- Inclusive Education, July 2013
- Research Design, July 2013

5. Published Research Papers

2011

Masingila, Joanna O., & Gathumbi, Agnes W. (2011). A collaborative project to build capacity through quality teacher preparation. *Proceedings of the 2nd International Conference on Education*, Nairobi, Kenya.

2012

Miheso-O'Connor, Marguerite, & Masingila, Joanna O. (2012). Supporting teachers in technology integration in Kenyan secondary schools. In Van Zoest, L. R., Lo, J.-J., & Kratky, J. L. (Eds.) *Proceedings of the 34th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 572, abstract of poster presented). Kalamazoo, MI: Western Michigan University.

2013

Foley, Alan R. (2013). Emerging trends in ICTs for education in Africa: Challenges and opportunities (Keynote address). *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya

Foley, Alan R., & Masingila, Joanna O. (2013). Using mobile devices to improve access to education for university students with visual impairments. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.

Masingila, Joanna O., & Miheso-O'Connor, Marguerite (2013). Kenyan secondary mathematics teachers' integration of technology in their teaching: Challenges and opportunities. *Proceedings of the 4th AFRICME conference*, Maseru, Lesotho.

Masingila, Joanna O., & Nthiga, Peter R. (2013). Using case studies to promote teacher learning. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.

- Masingila, Joanna O., & Oyuga, John (2013). Kenyan secondary teachers' integration of technology into their teaching practice. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.
- Ochanji, Moses K. (2013). Social media in the classroom: Implications for teaching, learning and school policies on cell phone use in schools. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.
- Ondigi, Samson, Ayot, Henry, Kiio, Mueni, & Nasibi, Mary (2013). Walking the talk and building bridges in the classroom through ICT: The way forward for pre-service training in Kenyan universities. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.
- Roy-Campbell, Zaline M. (2013). Identifying essential language and literacy skills for secondary school students learning through the medium of English language. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.
- Sore, Inviolata L., & Masingila, Joanna O. (2013). Searching for technological solutions towards the teaching of mathematics to learners who are deaf. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.
- Twoli, Nicholas W., & Maundu, John N. (2013). A model for pre-service teacher training on ICT-integration in teaching and learning at secondary school level. *Proceedings of the 3rd International Conference on Education*, Nairobi, Kenya.

2014

- Foley, Alan R., & Masingila, Joanna O. (2014). Building capacity: Challenges and opportunities in large class pedagogy (LCP) in Sub-Saharan Africa. *Higher Education*, 67(6), 797-808.

6. Research Papers Accepted for Publication

- Foley, Alan R., & Masingila, Joanna O. (accepted for publication, 2014). The use of mobile devices as assistive technology in resource-limited environments: Access for learners with visual impairments in Kenya. *Disability and Rehabilitation (Special Issue on Assistive Technology in Resource-limited Environments)*.

7. Research Papers Submitted for Publication

- Bwire, Adelheid M., Gathumbi, Agnes W., & Roy-Campbell, Zaline M. (submitted for publication, 2014). Instructional practices and challenges faced in English language teaching in secondary schools in Kenya: Implications for development of literacy benchmarks. *Submitted for publication to Journal for Language and Socio-cultural Theory*.
- Gathumbi, Agnes W., Ayot, Henry O., Kimemia, John N., & Ondigi, Samson R. (submitted for publication, 2014). Teachers' and school administrators' preparedness in handling students with special needs in inclusive education. *Submitted for publication to the Journal of Technology and Teacher Education*.
- Khatete, David W., Ndethiu, Sophia M., Foley, Alan R., Masingila, Joanna O., Maundu, John N., & Twoli, Nicholas W. (submitted for publication, 2014). From implementation to efficacy: Factors affecting Kenyan secondary teachers' technology integration. *Submitted for publication to Africa Education Review*.
- Ndethiu, Sophia M., Khatete, David W., Masingila, Joanna O., & Nichiporuk, Katie L. (submitted for publication, 2014). Kenyan secondary teachers' and principals' perspectives and strategies on teaching and learning with large classes. *Submitted for publication to Africa Education Review*.
- Ochanji, Moses K., Ayot, Henry O., Kamina, Penina, Ondigi, Samson, & Kimemia, John. (submitted for publication, 2014). Improving student teaching for quality teacher preparation: A Kenyan university case. *Submitted for publication to African Journal of Teacher Education*.
- Twoli, Nicholas W., Bwire, Adelheid M., Maundu, John N., & Ochanji, Moses K. (submitted for publication, 2014). Teacher mentoring for effective teacher training and development: The case of a developing country, Kenya. *Submitted for publication to Teacher Education and Practice*.

8. Conference Presentations

2012

- Bwire, Adelheid M. (2012). New perspectives and re-thinking the pre-service teacher curriculum: The case of Kenya. *ICERI 2012 (5th International Conference of Education, Research and Innovation)*, Madrid, Spain.
- Gathumbi, Agnes W. (2012). Institutionalization of interventions that promote language teaching in Kenya. *International Journal of Arts and Science Conference*, Harvard University, Cambridge, Massachusetts.
- Ondigi, Samson R. (2012). Social studies teacher preparation in Kenya. *National Conference on Geographic Education*, San Marcos, Texas.
- Twoli, Nicholas W. (2012). Using video cases to train science teachers in classroom instruction. *Conference on Case Study Teaching in Science*, SUNY Buffalo, Buffalo, New York.

2013

- Roy-Campbell, Zaline M., & Bwire, Adelheid M. (2013). Challenges of struggling adolescent readers in Kenya and the United States. *58th Annual Convention of the International Reading Association*, San Antonio, Texas.

2014

- Masingila, Joanna O., & Foley, Alan R. (2014). Using mobile devices to improve access to education for Kenyan students with visual impairments. *Paper presented at eLearning Africa 2014*, Kampala, Uganda.

9. Success Stories

- *Faculty Training Improves Kenyatta University's Integration of Technology in Teaching*, July 2013
- *Visually Impaired Students Find Independence Through Mobile Devices: Assistive Technology in the Classroom Expands Learning and Teaching Opportunities*, February 2014
- *Professional Development Workshops Provide Forum for Collegial Interactions and Pedagogical Discussions*, July 2014
- *"I Don't Avoid Going Any More: I Know I Can Now Contribute": Gaining Competency Through Mobil Assistive Technology*, July 2014
- *Concurrent Projects Provide Synergy for Implementing Video Lessons in Teacher Education*, July 2014
- *Changing the Perceptions of Others Through Mobile Assistive Technology*, August 2014

10. Other Products

- 'Cuse in Kenya' blog with entries on all project activities: <http://cuseinkenya.syr.edu>
- Booklets with Technology Instructions

ATTACHMENTS

Attachment I: KU-SU Partnership Final Report

Kenyatta University – Syracuse University Final Partnership Report September 2014

The Kenyatta University and Syracuse University partnership built capacity at the secondary school level through quality teacher preparation across the span of teacher education—from pre-service teacher preparation, to novice teacher induction, to practicing teacher continual growth. The purpose of our partnership was to enhance the capacity of Kenyatta University in its faculty, educational programs, research, and engagement with stakeholders to result in improved secondary education in Kenya.

Partnership Overview

Partnership context and objectives. As research institutions with strong traditions in teacher education and a strong connection to each other, Syracuse University and Kenyatta University are uniquely positioned to collaborate on the challenge of preparing highly qualified teachers. Kenyatta University's School of Education has been a leader in teacher education in East Africa since its founding in 1965. It is the oldest institution in Kenya that prepares secondary teachers. The School of Education has undergraduate, masters and doctoral degree programs. The main campus of the university enrolls approximately 40,000 students, of which approximately 5,200 are in teacher education programs.

Kenyatta University and Syracuse University have had an institutional linkage since 2000. Through the KU-SU institutional linkage a number of collaborations have already taken place. Twenty-six Kenyan students have completed or are completing Ph.D. (12), C.A.S. (3), or M.S. (13) degrees at SU in teacher education since 1999 (some students have earned more than one degree at SU). Since July 2009, the Schools of Education at KU and SU have co-sponsored a bi-annual international conference on education hosted by KU (2009, 2011, 2013; planning is underway for 2015).

Our partnership objectives were to (1) strengthen the capacity of the KU teacher education faculty resulting in improved teacher preparation for the education sector in Kenya, (2) strengthen the research capacity of the KU teacher education program resulting in improved knowledge to produce more effective education, (3) enhance the KU teacher education program resulting in improved instructional capacity, and (4) provide quality service to education stakeholders resulting in improved instruction in secondary schools in Kenya. Along with these objectives, we had a long-term goal of developing and establishing a model for teacher preparation and education that we will share with other universities in Kenya and other East African countries. Parallel to all of these objectives was our goal of building awareness of issues and successful strategies related to capacity building at the departmental, institutional and national level among the SU faculty members and other partners through our collaborative activities.

Summary of activities. Our activities consisted of ongoing professional development, scholar exchanges, support for KU faculty members to complete doctoral degrees, acquiring and developing instructional materials, experienced researchers mentoring KU researchers in research activities, and collecting and analyzing data on capacity built (Objective 1); developing, carrying out, analyzing data and submitting research manuscripts for publication for six research studies (Objective 2); collecting and analyzing data from graduates from teacher education programs, reviewing and revising curriculum for undergraduate and master's degree programs, develop multimedia case studies of lessons taught in Kenyan secondary schools to be used in preparing teachers, develop a mentoring program for student teachers, and provide access to printed material and training for KU education students with visual impairments (Objective

3); and develop policy briefs for recommendations stemming from project work, and disseminate research findings and best practices to education stakeholders (Objective 4).

Most significant achievements. Our most significant achievements have been the capacity that has been built among the faculty members in the Department of Educational Communication and Technology with using technology for their own work and in their teaching, in developing pedagogical strategies for teaching large classes, in developing multimedia case studies, and in completing six research studies and submitting manuscripts for publication.

Impact on host-country development and prospects for sustainability. The impact on the host-country development has been quite significant. Due to the capacity built among the faculty members of the Department of ECT, this is affecting all of the pre-service teachers who are prepared by these faculty members, and will in turn be teaching secondary students across the country. The prospects for sustainability are high as the capacity has been built, many materials, including technological materials have been obtained, and the faculty members are interested in continuing to develop their skills and knowledge. Additionally, due to new emphasis in Kenya on the professional development of in-service teachers, KU has developed the Teacher Professional Development Centre. The Centre is under the leadership of two of the KU team members, Prof. Henry Ayot and Dr. Samson Ondigi. The Centre has begun providing professional development activities for in-service teachers and principals coming to campus during school holidays.

Partnership period of performance, funding amount, leveraged funds, cost share. The partnership project period of performance was April 1, 2011 – August 14, 2014. The funding amount was \$1,122,210. Leveraged funds totaled \$987,000 (\$158,000 for Hewlett Packard Catalyst Initiative grant; \$100,000 for Hewlett Packard Leadership Fund grant; \$729,000 for tuition and stipends that have been awarded to seven Kenyan graduate students pursuing graduate studies at SU during the time of the partnership project. Cost share for this partnership award was \$224,219.

Partnership Results

Key achievements and all major outputs. The partnership's key achievements were (a) professional development workshops, (b) acquiring teaching materials, (c) scholar exchanges, (d) "sandwich" degrees, (e) research studies, (f) curriculum review, (g) collecting and analyzing data on graduates and faculty members, (h) mentoring program, (i) equipping students with visual impairments (VI), (j) multimedia case studies, (k) policy briefs, and (l) communication with stakeholders.

One of the partnership's key achievements was the involvement of almost all faculty members in the Department of Educational Communication and Technology in *professional development workshops*. We had a total of 23 different workshops, filling 30 six-hour days, as follows:

- *Curriculum Review for Undergraduate Courses* – This workshop was held May 12, 2011 for 6 hours at the Kenyatta University Conference Centre (KUCC). In all, 20 KU faculty members and one SU team member participated. Curricula for 26 courses were reviewed.
- *Teaching Large Classes* – This workshop was held October 13, 2011 for 6 hours at the KUCC. In all, 22 KU faculty members and one SU team member participated.
- *Supporting All Learners* – This workshop was held November 24, 2011 for 3 hours at the KUCC. In all, 22 KU faculty members and one SU team members participated.
- *Technology Integration in Teaching* – This workshop was held January 10, 2012 for 6 hours at the National ICT Innovation and Integration Centre (NI3C). In all, 24 KU faculty members, one KU project staff member, and three SU team members participated.
- *Basic Technology* – This workshop was held June 5, 2012 for 3 hours at the Department of ECT. In all, 12 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.

- *Pick-a-Topic* – This workshop was held June 6, 2012 for 3 hours at the Department of ECT. In all, 8 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Technology Integration in Teacher Education* - This workshop was held June 7, 2012 for 6 hours at a computer lab on the KU campus. In all, 16 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Using Tablet Technology in Instruction* - This workshop was held June 11, 2012 for 3 hours at the Department of ECT. In all, 15 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Developing a Web Presence in Online Teaching and Learning* - This workshop was held June 11, 2012 for 3 hours at the Department of ECT. In all, 8 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Universal Design* - This workshop was held June 12, 2012 for 3 hours at the Department of ECT. In all, 10 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Online Learning* - This workshop was held June 13, 2012 for 3 hours at the Department of ECT. In all, 14 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Creating Accessible Media for Use in Teaching* - This workshop was held June 14, 2012 for 3 hours at the Department of ECT. In all, 8 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Designing Effective Presentations* - This workshop was held January 7-9, 2013 for 18 hours at the KUCC. In all, 27 KU faculty members, two KU project staff members, and four SU team members participated. A SU team member led the workshop.
- *Using Multimedia Case Studies in Preparing Teachers* - This workshop was held June 18 and June 27, 2013 for 12 hours at the Department of ECT. In all, six KU faculty members in mathematics and science education participated. Two SU team members led the workshop.
- *Introduction to SurveyMonkey™* - This workshop was held July 2, 2013 for 3 hours at the Department of ECT. In all, 17 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Using Excel in Teaching* - This workshop was held July 3, 2013 for 3 hours at the Department of ECT. In all, 14 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Using an Interactive Whiteboard in Teaching* - This workshop was held July 3, 2013 for 3 hours at the Department of ECT. In all, 14 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Quantitative Research Design* - This workshop was held July 8-9, 2013 for 6 hours at the Department of ECT. In all, 18 KU faculty members, one KU project staff member, five KU doctoral students, and two SU team members participated. A SU team member led the workshop.
- *Inclusive Education* - This workshop was held July 8-9, 2013 for 6 hours at the Department of ECT. In all, 19 KU faculty members, one KU project staff member, and two SU team members participated. A SU team member led the workshop.
- *Curriculum Review for Master's Courses* - This workshop was held November 19, 2013 for 6 hours at the KUCC. In all, 16 KU faculty members participated. Curricula for 31 courses were reviewed.
- *Data Analysis and Writing Workshop* – This workshop was held January 6-10, 2014 for 24 hours at the Department of ECT. In all, eight KU faculty members and five SU team members participated.
- *Active Learning Strategies* - This workshop was held June 3-5, 2014 for 18 hours at the Department of ECT. In all, 44 KU faculty members participated (this is counting people who participated on more than one day for each day since new strategies were taught each day). Four SU team members led the workshop.
- *Data Analysis and Writing Workshop* – This workshop was held June 23-27, 2014 for 30 hours at the Department of ECT. In all, nine KU faculty members and three SU team members participated.

- *Follow-up Workshop on Multimedia Case Studies* - This workshop was held on June 30, 2014 for 3 hours at the Department of ECT. In all, four KU faculty members in science education participated. Two SU team members led the workshop.

The major outputs from these professional development workshops are improved technology skills, improved pedagogical training, and improved research skills for the faculty members who participated in these workshops.

A second partnership key achievement was ***acquiring of teaching materials***, including technology. More than \$28,000 was spent on acquiring teaching materials. Project funds provided each full-time faculty member with a laptop and an Internet modem. Additionally, the project provided the Department of ECT with an interactive whiteboard, iPads, iPad holders for use as document cameras, LCD projectors with laptops and external speakers, digital cameras, science and language kits, and many books and other curricular materials for use in teaching. The major outputs from these acquisitions are lecturers having resources for using technology in teaching and resources to use in teaching.

A third partnership key achievement was ***scholar exchanges***. From April to November 2012, 11 Kenyatta University faculty members each spent two months at Syracuse University where they observed classes, worked on research projects, used the SU library, and each participated in a professional conference related to their field somewhere in the United States. Four of the faculty members presented a paper or poster at the conferences they attended. Additionally, 8 SU faculty members, 3 SU and KU alumni who work at other universities in the U.S., and 7 SU doctoral students each spent time at KU ranging from 10 days to 7 months. Several SU team members were at KU multiple times. The major output from these scholar exchanges was the capacity that was built through these interactions.

A fourth partnership key achievement was ***“sandwich” degrees***. Two KU faculty members each spent one year (August 2011-August 2012) at SU earning a sandwich degree (in this case, a Certificate of Advanced Study). Both of the faculty members were doctoral students at KU at the time of their sandwich degree study. They took research methods courses and courses in their area of specialization. Additionally, they each worked with SU faculty members in working on their dissertation proposals and data collection. The major outputs from the sandwich degree activity are the progress these faculty members made in their doctoral program. One of these faculty members defended his dissertation in June 2013 and the other one is almost finished writing his dissertation.

A fifth partnership key achievement was ***research studies***. We planned and carried out six collaborative research studies in the following areas: Technology Integration in Kenyan Secondary Schools, Teaching Practice, Literacy Benchmarks in Kenyan Secondary Schools, Dealing with Large Classes in Kenyan Secondary Schools, Mentoring Pre-Service Secondary Teachers, and Supporting All Learners in Kenyan Secondary Schools. Data were collected beginning in 2012 and continuing through 2013, for these different studies. The data were analyzed and papers were written and submitted in 2014. The major outputs from these collaborative research studies are the six papers (one from each research study) that have been submitted for publication.

A sixth partnership key achievement was ***curriculum review***. In May 2011, KU faculty members and one SU team member reviewed all of the curricula for the undergraduate courses. During the next year and a half, these curricula were revised based on the data we collected from graduates of the program and capacity that had been built through the professional development workshops. These undergraduate curricula comprise the courses for both the traditional teacher education programs and the school-based teacher education programs. In November 2013, KU faculty members reviewed all of the curricula for the master’s courses. These curricula were revised based on the capacity that had been built through the professional development workshops. The major outputs from this curriculum review are the revised courses for both undergraduate programs and the master’s program.

A seventh partnership key achievement was ***collecting and analyzing data on graduates and faculty members***. In August-September 2011, we collected survey data from 50 novice teacher graduates and 50 experienced teacher graduates from the KU teacher education program. After analyzing these data, we learned how these graduates viewed their preparation to teach while at KU in key areas, such as integrating technology, teaching large classes, and supporting all learners. The major output from collecting and analyzing these data was gaining evidence on which to base curricula revision. In April 2011, we collected baseline data

from KU faculty members in the Department of ECT. After analyzing these data, we learned faculty members' perspectives on their current capacity and in what areas we should focus professional development. We again collect data from KU faculty members at the end of the project (June 2014) and found built capacity in some key areas, including an increase from 80% (baseline) to 100% (end-of-project) of participants agreeing that technology will support teaching and learning and they know the importance of using ICT in teaching, and an increase from 15.8% to 53.3% of participants agreeing that they are more confident in carrying out research. The major input from collecting and analyzing these data was having some measures of the capacity that was built through the project.

An eighth partnership key achievement was piloting a *mentoring program*. During 2013, we developed and piloted a mentoring programme for pre-service teachers and cooperating teachers during Teaching Practice (May-July 2013). The major outputs from the pilot mentoring program were gaining information from both student teachers and cooperating teachers about their perspectives on the teaching information process, and being able to use this information to restructure teaching practice.

A ninth partnership key achievement was *equipping students with VI*. Beginning in June 2012, we provided and trained 20 KU students with visual impairments (mostly Education students) on using iPads and keyboards to read and create text. We have also provided 11 sets of devices and keyboards to Thika Secondary School for the Blind and 14 sets of devices and keyboards to Kibos Primary School for the Visually Impaired and have trained students with visual impairments and teachers. The major outputs to this work are that these students with VI have gained access to education and gained independence in their lives.

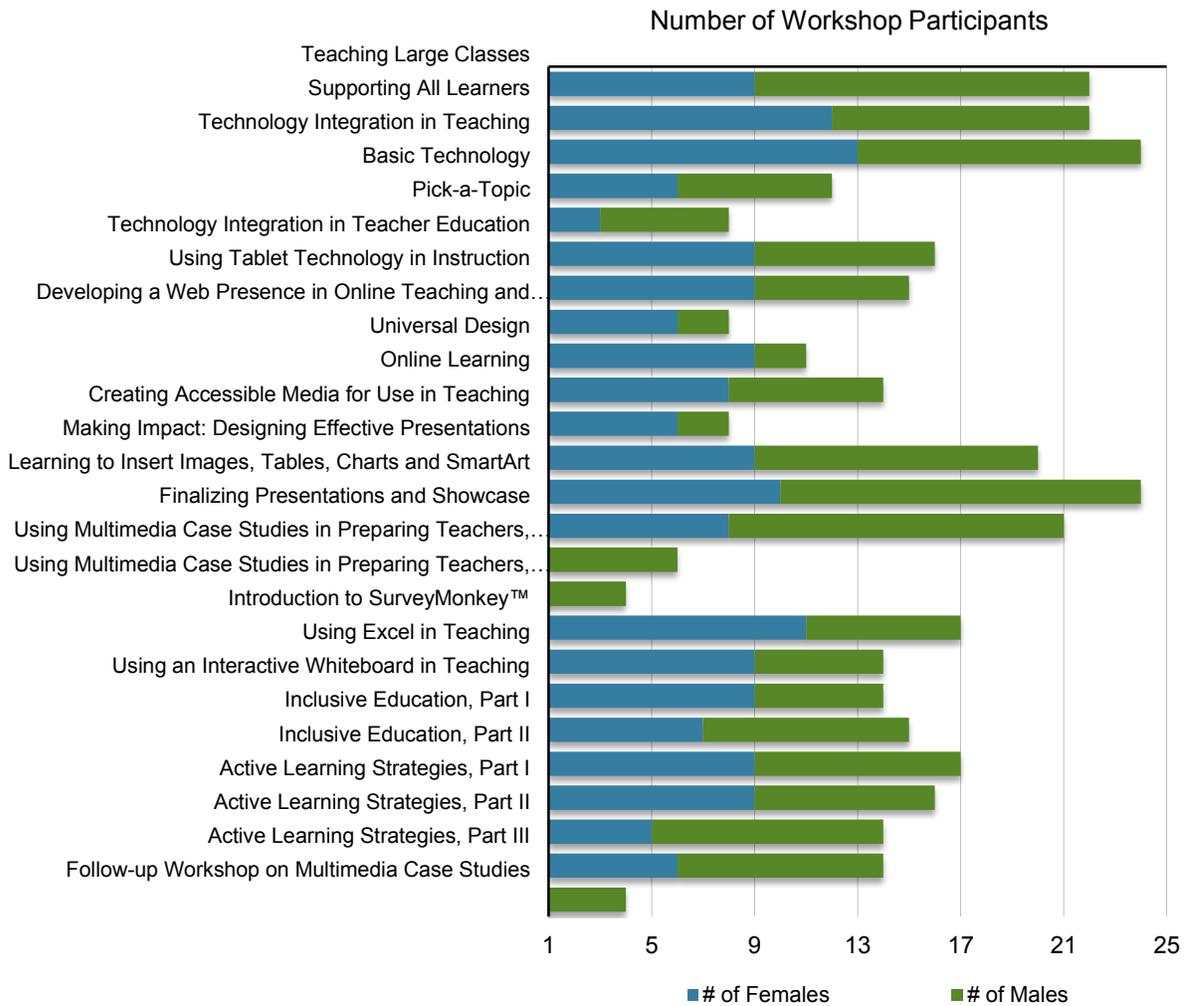
A tenth partnership key achievement was developing *multimedia case studies*. We developed 19 multimedia case studies across six subject areas that include lessons filmed in Kenyan secondary classrooms. The major output for this development work is that KU faculty members are using these multimedia case studies to have pre-service teachers reflect on experienced secondary teachers' instructional practice.

An eleventh partnership key achievement was creating *policy briefs*. We developed 11 policy briefs based on our six research studies and on data we collected as part of our professional development workshops. The major outputs for creating these policy briefs have been the recommendations in these briefs that we presented to KU administrators and other stakeholders, including USAID-Kenya officials, Ministry of Education officials, other school of education deans, and secondary school principals.

A twelfth partnership key achievement was *communication with stakeholders*. We had two meetings with stakeholders, one in February 2012 and one in July 2014. At the February 2012 meeting, we introduced our partnership project and our objectives and planned activities. At the July 2014 meeting, we reported on our accomplishments and received feedback from our stakeholders. The major outputs in the area of communication were the two stakeholder meetings and the information that we disseminated at these meetings.

Partnership's development outcomes. The goals of building capacity among the faculty members in the Department of ECT both in pedagogical terms and in research capacity were achieved. All members of the faculty participated in at least one of the 23 different workshops, and most faculty members participated in many of the workshops. Thirteen of the faculty members participated in the research studies that we carried out. The curricula for the teacher preparation programs (undergraduate traditional, undergraduate school-based, master's) were reviewed and revised based on data and knowledge gained through the partnership activities. We communicated with our stakeholders and disseminated information that we gained through the partnership.

Monitoring and evaluation findings. As described at the beginning of this report, we had four partnership objectives. Our first objective was to strengthen the capacity of the KU teacher education faculty members. One of our partnership outcomes (*Outcome 1.1*) under Objective 1 was an increase in the instructional capacity of the KU faculty members and strengthened ability to prepare teachers. One indicator (*Output 1.1.1*) of attaining this outcome is the faculty members who were trained to integrate technology into teaching and learning, trained to teach large classes, and trained to support all learners. We represent these data together since the professional development workshops interwove strategies of technology integration, teaching large classes and supporting all learners into almost all, if not all, sessions.



Another indicator (*Output 1.1.2*) of progress toward this objective is increased faculty members' content knowledge and pedagogical content knowledge. Evidence for this progress is found in two of our six success stories – one about Beatrice Murila and Doris Njoka, and one about David Khatete and Nicholas Twoli. These success stories illustrate how the KU faculty members have increased their knowledge of pedagogical strategies. Additionally, data comparing the baseline and end-of-project survey completed by KU faculty members demonstrate growth in this area, particularly in technology integration and research. In the area of technology integration, there was an increase from 80% (baseline) to 100% (end-of-project) of KU participants agreeing that technology will support teaching and learning and that they know the importance of using ICT in teaching. Related to research, there was an increase from 15.8% (baseline) to 53.3% of KU participants agreeing that they are more confident in carrying out research.

Some comments from participants completing the end-of-project questionnaire provide insight into the capacity that has been built from the perspective of the KU faculty members:

- “I am now confident in ICT utilization in all aspects of teacher education.”
- “The project has improved the way I manage interaction in class.”
- “I have improved on supporting all learners, but I am still learning how to address the needs of students due to their learning styles.”
- “This project created a forum for having a community of learners with my colleagues.”

Another partnership outcome (*Outcome 1.2*) under Objective 1 was to strengthen the academic qualifications of the teacher education faculty members. One indicator of progress toward this outcome is the number of individuals (faculty and/or teaching staff, students, and administrative staff) affiliated with KU who completed (*Output 1.2.1*) or are currently enrolled in long-term training programs during the partnership project. Two faculty members completed doctoral degrees during the partnership project, while another is expected to defend his dissertation at KU in early 2015. A KU faculty member completed a one-year post-doctoral fellowship at the University of Witswatersrand in South Africa. Another KU faculty member will complete a Certificate of Advanced Study in December 2014 at SU and is currently analyzing her dissertation data. A part-time KU faculty member is in her second year of a doctoral program at SU. KU faculty member is in his third year of a doctoral program at the University of Florida. Additionally, six Kenyan students who graduated from the KU teacher education program completed graduate degrees at SU during the time of the partnership project, and five have enrolled in SU teacher education graduate programs during this time.

Name	Role	Outcome
Bernard Mugo	KU faculty member	PhD, KU, 2013
Hellen Amunga	KU faculty member	PhD, Kerala University in India, 2014
Michael Waititu	KU faculty member	PhD, KU, anticipated in 2015
Marguerite Miheso-O'Connor	KU faculty member	Post-doc, University of Witswatersrand, 2014
Agnes Wanjau	KU faculty member	CAS, SU, 2014
Abbey Chokera	KU faculty member	3 rd year doctoral student, University of Florida
Stella Rwanda	KU part-time faculty member	2 nd year doctoral student, SU
Levi Molenje	KU alumnus	PhD, SU, 2012
Fred Odindo	KU alumnus	MS, SU, 2012
Beatrice Mathenge	KU alumnus	MS, SU, 2013
Calvin Osinde	KU alumnus	MS, SU, 2013
Leonard Kamau	KU alumnus	PhD, SU, 2014
Grace Orado	KU alumnus	PhD, SU, 2014
Nyaboke Nduati	KU alumnus	3 rd year doctoral student, SU
Peter Rugano	KU alumnus	3 rd year doctoral student, SU
Inviolata Sore	KU alumnus	2 nd year CAS student, SU
John Mungai Njoroge	KU alumnus	2 nd year doctoral student, SU
Grace Njuguna	KU alumnus	2 nd year MS student, SU

Our second partnership objective was to strengthen the research capacity at KU in the area of teacher education. An outcome (*Outcome 2.1*) under Objective 2 was to have research projects adopted and implemented. One indicator (*Output 2.1.1*) of attaining this outcome is to have research projects designed and developed. We designed and developed six research studies during this partnership project. Research papers have been written and submitted for publication for each of these studies. Additionally, KU faculty members were part of six other papers (listed in the Appendices on the List of Products Created Through the Partnership) that were published during the partnership project period, and four KU faculty members presented at professional conferences they attended during scholar exchanges at SU. These comprise another indicator (*Output 2.1.2*) of attaining this outcome.

Research Study Area	Data Collected	Data Analyzed	Manuscript Submitted for Publication
Technology Integration in Kenyan Secondary Schools	July-November 2012	September 2013-January 2014	June 2014
Teaching Practice	June – July 2012	September 2012-	March 2014

		January 2014	
Literacy Norms in Kenyan Secondary Schools	September 2012- July 2013	October 2013- January 2014	August 2014
Teaching Large Classes in Kenyan Secondary Schools	January-March 2013	September 2013- June 2014	June 2014
Mentoring Student Teachers	April-August 2013	October 2013-June 2014	August 2014
Supporting All Learners in Kenyan Secondary Schools	June-October 2013	February-June 2014	July 2014

Our third partnership objective was to strengthen the instructional capacity of the KU teacher education program. An outcome (*Outcome 3.1*) under Objective 3 was that KU would offer improved teacher education programs. An indicator (*Output 3.1.1*) of attaining this outcome is to have experiential applied learning components in the teacher education program improved. During the period of our partnership project, we reviewed and revised 26 course curricula for the undergraduate programs (both traditional and school-based), as well as reviewed and revised 31 course curricula for the master's program.

Another outcome (*Outcome 3.2*) under Objective 3 was to strengthen the teaching practice experiences of pre-service teachers at KU. An indicator (*Output 3.2.1*) of progress toward this outcome was the pilot mentoring program that was carried out April – August 2013. We gained valuable information during this pilot mentoring program and KU is now establishing a mentoring program as part of the teaching practice experience.

Our fourth partnership objective was to provide quality service to education stakeholders. One outcome (*Outcome 4.1*) was to make contributions to the teacher education community. An indicator (*Output 4.1.1*) demonstrating that we achieved this outcome was that we shared the project outcomes with teacher educators. We had a stakeholder meeting on July 2, 2014 where we shared the outcomes of our partnership project with the deans from three schools of education at universities in Kenya, as well as officials from the Ministry of Education, USAID-Kenya, and secondary school principals.

Another outcome (*Outcome 4.2*) under Objective 4 was to establish increased access to resources and skills through linkages and networking. An indication (*Output 4.2.1*) of our progress toward this outcome is through increased collaboration with stakeholders. Through this partnership project, we have collaborated with the National ICT Innovation and Integration Centre (NI³C) to have a training workshop at their centre in January 2012 for all members of the Department of ECT. Additionally, one member of the NI³C participated in the research study on examining Kenyan secondary teachers' integration of technology in teaching. Two members of the SU team, Alan Foley and Joanna Masingila, worked closely with six members of the NI³C in working with students with visual impairments (VI) and teachers at Thika School for the Blind and Kibos School for the Visually Impaired.

These two schools for students with VI are collaborators through the work that Alan Foley initiated in working with students with VI at KU. All of the students with VI at KU that we worked at had done their earlier schooling at either Thika or Kibos, so collaborating with these schools was an extension of our work with students with VI at KU. We worked closely with the KU Disability Services Office in identifying students with VI on the campus to benefit from the iOS mobile devices we supplied.

We accomplished other collaborative work through this partnership project with the Ministry of Education. One of our committees met several times with officials from the Directorate of Quality Assurance and Standards to discuss teacher performance expectations and assessments. Additionally, Jacinta Kapiyo, Deputy Director of Education from the Kenya Ministry of Education gave remarks and participated in our stakeholder meeting in July 2014.

Significant challenges to implementation and how these were addressed. We faced a number of significant challenges to implementation. One of the first challenges we faced was slow Internet access on campus and a lack of Internet access of campus for faculty members. During the technology workshops in early June 2012, we realized that the slow Internet access on campus and lack of access of campus made building technology capacity difficult for the faculty members in the Department of ECT. The faculty

members were learning skills in the workshops, but did not have many opportunities to practice them since most did not have computers at home, and even if they did, did not have Internet access. We addressed this challenge by purchasing laptops and USB modems for all full-time members of the faculty so that they would have access to computers all of the time as well as access to the Internet.

Another significant challenge we faced was creating a classroom-learning laboratory. Almost from the start of the partnership project, we talked about having a classroom be used as a learning laboratory. This room could have computers from the HP Catalyst Initiative project and learning laboratory equipment. We have computers that were obtained through a HP Catalyst Initiative grant that are still in boxes because there is not a space where these could be available for students and/or faculty members to use them. The interactive whiteboard that we purchased through this project was finally put in the department board (conference) room because there was no classroom that was secure enough to have it be there. Thus, the equipment and space has not been available for faculty members to use in engaging students in their classes in active learning. We addressed this issue when the Vice Chancellor came to the dedication of the interactive whiteboard in the department. Team members discussed with the Vice Chancellor about having a dedicated classroom (Room 12) to be used as a learning laboratory. This space was finally made secure in April-May 2014 and we are hopeful that this will become a well-used learning laboratory.

An additional significant challenge that we encountered was a lecturer strike in March 2014. Due to the resulting rush to complete the term, once the strike ended, we were not able to collect data to follow up on the recent graduates of the KU teacher education program as we had planned. To address this challenge, we discussed with the HED Monitoring and Evaluation team that we would not be able to collect these data.

Photographs and additional information. Many photos and blog entries about partnership activities can be found at <http://cuseinkenya.syr.edu>.

Conclusion

Summary of key lessons learned and advice for future implementers. We learned several key lessons through this partnership. One key lesson is that to build capacity at a unit level, all members should be involved. When we planned and implemented professional development workshops, we realized that in order for them to have an impact on the department and to build some real capacity, we needed to have as many faculty members involved as possible.

Another key lesson that we learned is that scholar exchanges serve as an important way to engage people in activities on the ground at each partner site. The scholar exchanges that brought KU scholars to SU allowed them to observe classes, visit schools to observe pre-service and in-service teachers, attend research methods courses, make use of the library, and participate in professional conferences in their subject areas. The scholars were able to network at the professional conferences to meet scholars from other universities to interact with. The scholar exchanges that brought SU scholars to KU allowed them to learn more about the teacher education context in Kenya, and to work in sustained ways on partnership objectives.

Another key lesson we learned was the need to actively engage faculty members in the professional development workshops. In order to have capacity built that would be transferred into practice after the workshop, we needed to provide opportunities for the workshop participants to think about, plan, and try out the new knowledge and skills gained through the workshops. Thus, we engaged workshop participants in creating surveys on SurveyMonkey™, working with Excel commands, using iPads with apps, getting feedback on their research designs, trying out inclusive teaching strategies, making and presenting effective PowerPoint presentations, planning how to use active learning strategies, etc.

In the area of research, a key lesson we learned was that in order to complete data analysis and writing of papers for publication, we needed to set aside time for that to happen. Due to the demands of teaching, working with masters and doctoral students on their research, and committee work, if we did not dedicate specific time for data analysis and writing, it did not get done.

We also learned a key lesson related to our work with students with visual impairments. That lesson is that students with VI can have access to educational materials and can be much more independent with devices such as iPads and keyboards. The students' stories that they told (and that we tried to capture through

three success stories) demonstrate the great capacity that they built through a little training and having these tools to allow them to access text.

Analysis of partnership affect on policies and practices. Through this partnership, we developed 11 policy briefs that have recommendations about (a) large classes at the university level and secondary school level in Kenya, (b) supporting all learners at the university level and secondary school level in Kenya, (c) technology implementation and integration at the university level and secondary school level in Kenya, (d) teaching practice for pre-service teachers in Kenya, (e) using multimedia case studies in preparing pre-service teachers, (f) supporting students with visual impairments using assistive technology, (g) mentoring in pre-service teacher training, and (h) literacy norms in Kenyan secondary schools.

We shared these recommendations with administrators at Kenyatta University, officials in the Ministry of Education, staff members from USAID-Kenya, leaders from other schools of education in Kenya, and secondary school principals. One change in practice at KU has been that after seeing a demonstration of the interactive whiteboard purchased for the Department of ECT, the KU Vice Chancellor had 10 more interactive whiteboards purchased and installed in classrooms at KU. Additionally, the Department of ECT has become known on the KU campus for the capacity that has been built, particularly in use of technology in teaching and technological skills among faculty members. Several faculty members in the department have been asked to lead university-wide workshops on pedagogical strategies. A number of faculty members in the department report that they have changed their instructional approaches due to the capacity they have built through the professional development workshops. Four faculty members' experiences are captured through two success stories (Beatrice Murila and Doris Njoka; David Khatete and Nicholas Twoli). We anticipate that the effects of our partnership project will continue to grow and be realized through the capacity that has been built in the faculty members in the Department of ECT.

Continued collaboration. We have just renewed our Memorandum of Understanding and will continue to collaborate on the co-sponsored International Conference on Education, and look for ways to collaborate on research studies. We are seeking funding for projects that extend work accomplished in this project in particular areas. We will look for ways to support faculty members in spending research leaves at the partner institution. We will continue to work together on doctoral dissertation committees, and support qualified KU graduate students in doctoral studies at SU.

Prospects for sustainability and future opportunities. The prospects for sustainability are good due to the capacity that has been built among the faculty members in the Department of ECT. Many of the faculty members are making use of new skills and new knowledge they have gained through the partnership in their teaching, their research, and in their work with teachers. The biggest impact may come in the pre-service teachers who are prepared by these faculty members with increased capacity and who then go out to teach secondary school around the country of Kenya. We foresee teachers who are better prepared to implement and integrate technology in their teaching, better prepared to teach large classes and actively engage students in learning, and better prepared to support all learners. We anticipate that these teachers with a higher level of preparation will result in increased learning among secondary students in Kenya, which in turn will result in students better prepared for college and university level learning, and contributing to the economic growth of the country.

As noted previously, KU and SU have just renewed again their Memorandum of Understanding so the collaboration will continue. We are planning for the 4th International Conference on Education for July 2015, and we will look for funding and ways to continue working together and building capacity.

Appendices

- List of Products Created Through the Partnership
- List of Resources Obtained Through the Partnership
- Policy Briefs (11)
- Success Stories (6)

Attachment II: Negotiated Indirect Cost Rate Agreement



NEGOTIATED INDIRECT COST RATE AGREEMENT

November 7, 2014

ORGANIZATION

American Council on Education
One DuPont Circle, Suite 800
Washington, D.C. 20036

The rates approved in this Agreement are for use on grants, contracts and other agreements with the Federal Government to which OMB Circular A-122 applies, subject to the conditions in section II.A, below. The rate(s) were negotiated by the U.S. Agency for International Development in accordance with the authority contained in Attachment A, Section E.2.(a), of the Circular.

SECTION I: NEGOTIATED INDIRECT COST RATES

Type	Effective Period		Indirect Cost Rates					
			Fringe Benefits		Overhead		Subaward Admin (e)	G&A (f)
	From	Through	Perm (a)	Temp (b)	CLLL Depart. (c)	Grant & Contract (d)		
Final	10-01-12	09-30-13	30.65%	8.13%	6.29%	8.07%	3.25%	43.27%
Provisional	10-01-13	Until Amended	27.44%	6.55%	5.15%	7.57%	3.32%	41.20%

Base of Application

- (a) Total permanent salary dollars
- (b) Total temporary salary dollars
- (c) Total CLLL direct costs
- (d) Total federal direct labor plus associated fringe benefits
- (e) Total subaward costs
- (f) Total costs excluding G&A expenses and subaward costs

U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523
www.usaid.gov

SECTION II: GENERAL

- A. LIMITATIONS: Use of the rate(s) contained in this Agreement is subject to all statutory or administrative limitations and is applicable to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rate(s) agreed to herein is predicated upon the following conditions:
1. That no costs other than those incurred by the grantee or allocated to the grantee via an approved central service cost allocation plan were included in its indirect cost rate proposal and that such incurred costs are legal obligations of the grantee and allowable under the governing cost principles,
 2. That the information provided by the grantee which was used as a basis for acceptance of the rate(s) to herein is not subsequently found to be materially inaccurate,
 3. That the same costs that have been treated as indirect costs have not been claimed as direct costs, and
 4. That similar types of costs have been accorded consistent treatment.
- B. ACCOUNTING CHANGES: The grantee is required to provide written notification to the indirect cost negotiator prior to implementing any changes which could affect the applicability of the approved rates. Any changes in accounting practice to include changes in the method of charging a particular type of cost as direct or indirect and changes in the indirect cost allocation base or allocation methodology require the prior approval of the Office of Overhead, Special Cost and Closeout (OCC). Failure to obtain such prior written approval may result in cost disallowance.
- C. NOTIFICATION TO FEDERAL AGENCIES: A copy of this document is to be provided by this organization to other Federal funding sources as a means of notifying them of the Agreement contained herein.
- D. PROVISIONAL-FINAL RATES: The grantee must submit a proposal to establish a final indirect cost rate within nine months after its fiscal year end. Billings and charges to Federal awards must be adjusted if the final rate varies from the provisional rate. If the final rate is greater than the provisional rate and there are no funds available to cover the additional indirect costs, the organization may not recover all indirect costs. Conversely, if the final rate is less than the provisional rate, the organization will be required to pay back the difference to the funding agency.

E. SPECIAL REMARKS:

1. Indirect costs charged to Federal grants/contracts by means other than the rate(s) cited in the agreement should be adjusted to the applicable rate(s) cited herein which should be applied to the appropriate base to identify the proper amount of indirect costs allocable to the program.
2. Grants/contracts providing for ceilings as to the indirect cost rate(s) or amount(s), which are indicated in Section I above, will be subject to the ceilings stipulated in the grant, contract or other agreement. The ceiling rate(s) or the rate(s) cited in this Agreement, whichever is lower, will be used to determine the maximum allowable indirect cost on the grant or contract agreement.
3. The rates hereby approved are subject to periodic review by the Government at any time their use is deemed improper or unreasonable. You are requested to advise the Government promptly of any circumstances, which could affect the applicability of the approved rates.
4. You are directed to promptly submit adjustment vouchers or final vouchers for all flexibly priced grants, contracts or other agreements. Audit adjustments should be clearly delineated so as to be readily identifiable for verification by this office. Care should be taken that amounts claimed do not exceed award limitations or indirect cost rate ceilings;

ACCEPTED: American Council on Education

By: Jeffrey R. Davies
Signature
Jeffrey R. Davies
Printed or Typed Name
Vice President - Finance
Title
November 7, 2014
Date

James N. Davis
Signature
James N. Davis
Printed or Typed Name
Contracting Officer
Overhead, Special Cost and Closeout Branch
Cost, Audit and Support Division
Office of Acquisition and Assistance
U.S. Agency for International Development