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NetCorps Jordan and the Mother and Child Program: Options for Growth and Sustainability

AMIR II Achievement of Market-Friendly Initiatives and Results

July 2006

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**NetCorps Jordan and the Mother and Child Program:
Options for Growth and Sustainability
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Abstract

It is the Mother and Child Program's success that brings about the necessity for increased sustainability and growth. With the proper partners, NetCorps Jordan has the potential to roll-out the program on a country-wide scale. This report discusses growth and sustainability options for the program as it continues to bring ICT awareness and education to communities and vital experiential career opportunities to interns throughout the country. The report incorporates options for partnerships and sustainability, and the discussion focuses on several key areas: commercialization options, software options, interns, mothers, teachers, and institutionalization of the program into the national kindergarten curriculum.

Abbreviations and acronyms

AED	Academy for Educational Development
ICT	Information Communication Technology
JOHUD	Jordan Hashemite Fund for Human Development
MACP	Mother and Child Program
NCJ	NetCorps Jordan
ZENID	Queen Zein al Sharaf Institute for Development

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Executive Summary

The past four months have seen the highly successful implementation of the Mother and Child Program. This program, run by NetCorps Jordan through a grant from the USAID-funded AMIR program, and implemented in partnership with the Jordan Hashemite Foundation for Human Development, local Knowledge Stations, and Rubicon, an educational software development company, brought together Knowledge Centers and JOHUD kindergartens, interns and teachers, mothers and children, raising ICT awareness in communities throughout the south of Jordan.

This spring, the Mother and Child Program successfully enlarged ICT awareness and educational opportunities to eleven communities throughout the south of Jordan. The program worked with almost one thousand students, over 250 mothers, 38 teachers, and 26 interns and field support. The program was so successful that over 130 dedicated mothers were funded by NetCorps Jordan for continuing ICT education through the local Knowledge Stations.

It is the Mother and Child Program's success that brings about the necessity for increased sustainability and growth planning. With the proper partners, NetCorps Jordan has the potential to roll-out the program on a country-wide scale. This report discusses growth and sustainability options for the program as it continues to bring ICT awareness and education to communities and vital experiential career opportunities to interns throughout the country. The report incorporates options for partnerships and sustainability, and the discussion focuses on several key areas: commercialization options, software options, interns, mothers, teachers, and institutionalization of the program into the national kindergarten curriculum.

NetCorps Jordan

NetCorps Jordan (NCJ) aims to involve Jordanian youth in the socio-economic development of the country through the use of ICT education and experiential opportunities. NCJ's programs integrate ICT education with solid internship experiences, resulting in an increase in skills and opportunities for all involved individuals.

Begun in 2002, and officially established as an independent organization in June 2005, NetCorps Jordan is a non-profit, Jordanian-owned company working in partnership with USAID, the Ministry of ICT, the Canadian Digital Opportunity Trust, Cisco, and other local entities. NetCorps Jordan was developed through the cooperation of the USAID-funded Achievement of Market-Friendly Initiatives (AMIR) program and the Queen Zein al Sharaf Institute for Development (ZENID).

Mother and Child Program

NetCorps Jordan's Mother and Child Program (MACP) aims to introduce kindergarten-age students and their mothers to basic ICT education, with the long-term goal of increased ICT-integration into the needs of both groups. Using locations in which a Knowledge Station and a JOHUD kindergarten are housed in the same facility, the program increases the capacity of both by bringing the two together. MACP aims to broaden community use of the Knowledge Station while simultaneously expanding the range of educational experiences available through the kindergarten.

The pilot phase, which was implemented between January and June 2005, in Ajloun and Madaba, suggested that such ICT exposure better prepared the children for future ICT education, participating mothers were more likely to continue with ICT education, and the greater community became more ICT aware. Due to the success of the pilot phase, the Mother and Child Program was expanded to 11 locations in the south of Jordan, in the regions of Aqaba, Maan, Tafila, and Kerak.

The current implementation, which concluded on July 15, 2006, included 22 interns (two per Knowledge Station), four field support (one per region), and 38 kindergarten teachers. The program worked with over 960 students in both KG 1 and KG 2 (*bustan* and *tamhidi*) and over 250 mothers.

Instructed by local NetCorps Jordan interns, and using software developed by Rubicon, mothers and children worked together to master basic computer skills, such as turning the computer on and off, using the mouse, basic use of the keyboard, and navigation of familiar software. The children also received the benefit of increased exposure to Arabic language, English language, and math lessons.

This implementation of MACP increased the focus on mothers, including the funding of mothers who showed particular dedication to the program in continued computer classes at their local Knowledge Stations. Due to an overlap with the end of the school year and summer break, the

second half of the program focused almost exclusively on mothers, although many continued to bring their children to the daily MACP lessons.

Expanded intern training included technical training, early childhood development skills, soft skills crucial to professional development, and monitoring and evaluation methodology and best practices. The current implementation of MACP also increased the focus on sustainability through expanded training and integration of kindergarten teachers, so that they would be able to continue the program following the departure of MACP interns and oversight. Additionally, the monitoring and evaluation component of the project was expanded to greater encompass all participants and concerned parties, including children, mothers, teachers, partners, and other community members, in order to develop a set of growth and sustainability options based more completely upon the needs of the participants and the communities.

MACP goals

The Mother and Child Program aims to increase community exposure to ICT and the integration of ICT into the classroom setting at a young age. It also aims to increase community awareness of ICT possibilities already available within the community, such as at the local Knowledge Stations. The internship aspect of the program endeavors to create a link for young adults between education and the workplace by providing a solid work experience.

The goals of the Mother and Child Program are strongly in line with national ICT and education sector goals, for example:

- Introduce ICT awareness into early childhood education, ensure access to ICT resources within schools, and increase the ability of educators to utilize ICT resources within the classroom setting.
- Use ICT awareness and literacy to increase economic opportunities for mothers.
- Promote utilization of Knowledge Stations as community access points to ICT opportunities and increase the variety of ICT development programs offered through the Knowledge Stations.
- Provide experiential opportunities to interns in order to increase economic opportunities available to this group.

When considering options for MACP and NCJ growth and sustainability, it is important to consider where both NetCorps and the Mother and Child Program might possibly play an increasing role in realizing other national goals, such as the following:

- Increasing availability of affordable home computers and the percentage of homes with a computer.
- Increasing classroom connectivity and the use of ICT in the classroom.
- Closing the gap between the skill sets of graduates of higher education institutions and the needs of the economy.

By moving in the direction of encompassing an increasing number of national goals within its programs NetCorps Jordan will not only contribute even further towards improving the national ICT environment, but will increase growth and partnership options for itself and the Mother and Child Program.

Summary of successes and challenges

The Mother and Child Program was highly successful in implementing its ICT awareness program during the spring of 2006. Satisfaction levels were very high among all participants, partners, and community members surveyed. All parties voiced enthusiasm for the program and encouraged NetCorps Jordan to continue implementation. Those surveyed also made useful suggestions that may be incorporated into future implementations.

The following are the major successes, challenges, and recommendations from the final assessment report for the Mother and Child Program. These recommendations were the basis for the larger discussion of growth and sustainability possibilities found in this report.

Major successes

- MACP increased ICT awareness in 11 communities, working with over 960 students, over 250 mothers, and 38 kindergarten teachers.
- MACP provided a solid experiential opportunity to 22 interns and 4 field support interns, thereby increasing economic opportunities.
- NCJ funded 137 mothers to continue their computer studies through the local Knowledge Stations.
- MACP increased economic opportunities for mothers and other community members by increasing computer literacy and ICT skills.
- MACP increased the range of educational opportunities available through participating kindergartens.
- MACP increased students' readiness for the integration of ICT into the classroom setting and future ICT education.
- MACP helped multiple women battle illiteracy.
- MACP increased direct parental involvement in their children's educations.
- MACP received very high levels of satisfaction from all participants, partners, and communities involved in the program.

Major challenges

- Keeping program implementation in line with the school year calendar and allowing sufficient time for program implementation.
- Increasing ICT training for teachers and increasing the focus on preparing teachers to continue using ICT in the classroom.
- Increasing efforts to ensure post-internship opportunities for interns.
- Increasing economic opportunities for participating mothers.
- Increasing overall program sustainability.

Major recommendations for future implementations

- Teachers should receive increased ICT training.
- If MACP continues to use the Rubicon software, the program should be implemented over a longer period of time to cover the material contained in the software, and teachers should have greater control over the timing of individual lessons.
- Interns should receive further career support and internships should be linked more closely with educational background or the higher education system.

- Efforts should be made to increase economic opportunities open to mothers who graduate from MACP.
- NCJ should increase the focus on overall program sustainability.

Possibilities for Growth

NCJ's Mother and Child Program has shown phenomenal success in its ability to touch the lives of kindergarten-age children, local mothers, teachers, interns, and the larger community. It has expanded educational growth possibilities for both children and mothers, and has widened the job prospects of young adults, mainly young women, from across the south of the country.

The expansion of NetCorps Jordan is in line with the goals of national ICT and education strategies, which promote the regular use of ICT within the education system in order to produce a generation of young men and women skilled in the digital world.

Much emphasis has been placed on the use of ICT within the classroom and the percentage of secondary school students with access to computers continually increases. However, resources have often limited opportunities for students in primary schools, and previously there has been almost no emphasis on introducing ICT to kindergarten-age children. It is from this point that the Mother and Child Program begins to introduce ICT into the classroom.

The following are issues that NetCorps Jordan should consider while assessing possibilities for growth and overall program sustainability:

- **Partnerships and sustainability** – In order to take MACP to the next level, NCJ should examine a range of partnership and sustainability options. Such partnerships would expand the pool of expertise and resources, as well as the potential reach of the program. Partnership options include universities, the Ministry of Education, private sector partners, and other organizations focused on early childhood education. Sustainability centers around commercial options, such as the sale of low-cost computer equipment and software.
- **Commercial options** – NCJ should explore possibilities for taking one or more aspects of the Mother and Child Program into the commercial arena, as well as incorporating private sector partners who bring an element of commercial potential to the program. Commercial potential increases sustainability options, as well as possible services offered within the communities.
- **Software options** – Possibilities include utilizing free or low-fee software, as well as developing software specifically for MACP. If taking the latter option, NCJ may wish to team with other partners working in the field of early childhood education in Jordan to develop appropriate software. The content of software developed specifically for MACP could then be targeted to complement the national kindergarten curriculum.
- **Interns** – Options include a more targeted internship experience, with greater emphasis on preparing interns to enter a competitive job search or further training following conclusion of the program. Possibilities include partnerships with local universities and increased career-oriented services offered to interns while participating in the program. Because all NCJ programs incorporate the use of internships, these options might be expanded to include other NCJ interns.

- **Mothers** – Options include expanding career possibilities for women in select communities with sufficient demand. This would include possibilities for telecommuting and outsourcing to these areas. These options may be linked with other NCJ programs and potential partners.
- **Teachers** – Possibilities include expanded focus on teacher training, especially further computer training, as well as encouraging the development of solid plans for the continuation of computer use in the classroom.
- **Institutionalization** – Options include working with the Ministry of Education to integrate the Mother and Child Program into the regular kindergarten curriculum.

Partnerships

NetCorps Jordan should consider a range of possible partnerships for the Mother and Child Program. Partnership options include local, Jordan-based organizations such as Int@j and expand to include international companies such as Microsoft or Cisco. Indeed, NCJ may find that the best opportunities lie in the construction of a Global Development Alliance, including both local and foreign, non-profit and commercial, partnerships.

Partnership options include:

- Local organizations and companies, including Int@j.
- Other development programs and projects in Jordan, including the USAID ERfKE Support Project (being implemented by the Academy for Educational Development) and Jordan Pioneers (the company behind the Jordanian version of the children's show *Sesame Street*).
- International companies, such as Microsoft, Cisco, or Intel.
- Universities, focusing on those universities with early childhood education programs and other education concentrations.
- Government entities, such as the Ministry of Education.

The construction of partnerships depends on where NetCorps Jordan wishes to take the Mother and Child Program for the next implementation. The sections below discuss partnership options in the context of each option for program growth and sustainability.

A look at sustainability

Sustainability must be viewed in two ways: the continuation of ICT incorporation and MACP-style classes within individual kindergartens following the departure of NCJ interns and program support; and overall program sustainability that will allow NCJ to continue implementing the Mother and Child Program in an ever-larger arena.

NCJ has already made significant headway in maintaining ICT incorporation and MACP-style classes with kindergartens following its departure from a community. Efforts have been made to incorporate teachers into the daily teaching of MACP classes, and NCJ has been highly

successful at instilling an understanding of the importance of technology use in the classroom, a community and partner mindset that is crucial to the continuance of the program.

Overall program sustainability should be viewed with a mind towards partnerships and commercial potential. This includes the sale of low-cost computer equipment and software, as well as other income-generating activities that may be incorporated into the objective of increased economic opportunities for participating mothers. In the discussion below, it will be noted when an option has potential to contribute to the sustainability of the program.

Commercial options

The goal of the Mother and Child Program is not to generate income. However, commercializing certain elements of the program may be a viable option for ensuring program sustainability. Commercial options center around sales of low-cost computer equipment and software, and may best be conducted through partnerships.

The Kerak computer sales success story indicates a very viable option for the sale of computer equipment. Upon the initiative of a local, Kerak-based computer business, women who participated in the Mother and Child Program were given discounts in the purchase of home computers. Multiple women took advantage of this opportunity, which increased their, and their children's, regular access to computers. Such an initiative also supports the local economy.

Possibilities for affordable computer sales include partnerships with international companies, such as Microsoft, to sell reduced-price computers in the communities. Some programs of this nature will even work through local businesses, thus strengthening the local economy. Such a program would follow the national goal of increasing personal computer ownership and would fill a nationally-recognized gap in the availability of affordable personal computing equipment. The sale of computer equipment and the increase in home computer ownership would also foster the goals of the Mother and Child Program. The current implementation found that 90% of the time computers were available in the home, children were reported to use these computers. Mothers were also more inclined to take advantage of computers in the home after having learned basic computer skills through MACP.

The software utilized by the Mother and Child Program presents a second option for commercialization of certain aspects of the program. Should NetCorps Jordan and its partners decide to develop a software specifically for the program, this software, or a version of it, might be sold to participants and partners at reduced prices. Software sales, especially when coupled with an increase in home computers, would both reinforce lessons learned in school and increase children's usage of the software and exposure to computers outside school hours.

Software

The software currently utilized by the Mother and Child Program is an off-the-shelf software developed by Rubicon. The software focuses on three subjects: Arabic language (“*Lughati*”), English language (“*Inglizi*”) and math (“*Hisaabi*”). The two language sections cover knowledge of the alphabet, sound recognition, and words common to a young child’s vocabulary. The math section covers numbers, basic arithmetic functions, shapes, and colors.

A major success of the Rubicon software was that it allowed certain communities to address illiteracy among participating mothers. In at least three communities, participating mothers included those who were unable to read and write in Arabic. This number was vastly expanded when including those who were able to benefit from the basic English language training.

A second success came in the number of reports from communities who felt that the quality of education for kindergarten students had significantly increased, due to the Arabic, English, and math components of the program and the high quality of intern teaching. In only a few weeks following the start of the program, a class that parents had previously complained was not sufficiently addressing their children’s educational needs had mastered the entire Arabic alphabet and was continuing with lessons in English and math.

The main objective of the Mother and Child Program is to introduce kindergarten age students to the basic functions of a computer. Although NCJ has chosen to accomplish this objective during the current implementation through the use of educational software, the educational value of the software is not the primary concern of the program. Other types of software, including non-educationally oriented games, might be utilized to engage the children with the computer. Additionally, the objective may also be met through software that expands the kindergarten curriculum instead of complementing it. Software introducing children to general safety topics or creative software might be utilized.

Possibilities to consider:

- Use of freeware or low-fee software available over the internet.
- Creation of software specifically designed for MACP.

The first option involves the use of **free or low-fee software** available over the internet. This would allow MACP significantly more flexibility in software usage and would reduce overall costs associated with software development, packaging, and usage fees. The downside of this option is that it might limit MACP to that software which is currently available, which may not be as comprehensive as needed or may not address the English/Arabic language barrier. Such an option also does not provide continuity between Knowledge Stations or implementations.

A second viable option entails teaming with other early childhood education projects in Jordan to **produce a new software package** specifically designed for the needs of MACP. A partnership with Jordan Pioneers, currently producing *Sesame Street*, should be evaluated. Jordan Pioneers is spending the current year on research for, and development of, a second season of *Sesame Street* (to be released January 2007) aimed specifically at a young Jordanian audience. This option might complement the early childhood education efforts of both NetCorps Jordan and Jordan Pioneers.

The downside of this second option is the high initial cost for software production, unless another partner can be found to shoulder such costs. However, as mentioned previously, should NetCorps and its partners choose to produce software specifically for the Mother and Child Program, marketing of the software, both within the MACP communities and to the public in general, provides an option for overall program sustainability.

Interns

All of NetCorps Jordan's program focus on the centrality of the internship experience in the implementation of ICT programs. Internships are rightly seen as a crucial aspect in the ICT growth of the country, linking the strong educational backgrounds of many young Jordanians with necessary experiential opportunities that incorporate ICT into personal and community growth.

The young adults (25 women, 1 man) who participated in the current implementation of the Mother and Child Program all showed strong academic records and intense determination, but faced difficulties finding work or other experiential opportunities within their communities. When describing their MACP internship experience, many noted that the opportunity allowed them to gain hands-on experience in the education sector and strengthen soft skills necessary in the work place. They spoke of increased ability to communicate within a work environment, to plan and map out goals, of raised self-esteem, and of the pride that comes with watching their hard work pay off as children and mothers learn. Multiple MACP interns were offered jobs at kindergartens in which they had worked during the program.

The NetCorps Jordan internship was highly successful in providing the interns with a solid experiential opportunity. However, these interns are often still left at the end of the program facing a challenging economic environment in which to find further work and pursue careers. Additionally, many options exist to expand the internship program, increasing its reach and impact.

Possibilities for growth:

- Partner with local universities and technical schools to integrate experiential internships into early childhood education programs and other schools with education concentrations.
- Expand intern training and program resources, including an NCJ intern manual.
- Expand career services available to all NCJ interns and develop targeted resources according to specific location and program needs.
- Link MACP internships with other possible internships that MACP interns might "graduate" to.
- Expand internships along the Teach for America model.
- Link multiple NCJ internship programs to further overall goals, such as bringing other NCJ interns to work with mothers to expand economic opportunities.

Previously, MACP has mainly targeted young adults who have finished their education and are looking for real-life experiences to complement the job search and expanded career possibilities. While this has widened the pool of possible young women (and sometimes men) who gain from

an MACP internship, it may be more beneficial to both NCJ and the participants if the internship were more structured **and integrated into relevant educational experiences**.

Jordan's higher education system is one of the strongest in the Middle East, including both high-quality classroom time and experiential opportunities. Many institutes of higher education require an experiential opportunity prior to graduation, and it is here where possibilities for NCJ to partner with universities lies.

Starting with a pilot program at universities open to the idea of internships (possible Yarmouk University and the Princess Sumaya University of Science and Technology), NCJ might team with education departments to allow third and fourth year students to participate in MACP internships in exchange for university credit. Such a partnership would give education students a direct experience in early childhood education and in educational development challenges facing Jordan today, allowing them to connect theory with practice. And by obtaining university credit, the idea of experiential internships directly linked to education would be strengthened.

Another option for interns is to expand the training possibilities offered to provide **targeted career counseling**. Although many of these young people hold impressive educational resumes, and MACP has now provided them with an experiential counterpart, they often do not know how to best present themselves in a job search. A one-day, hands-on seminar might be offered to all participating interns, focusing on proper resume and cover letter writing techniques, job search strategies, and other career counseling. Such counseling would need to focus specifically on the job market in which these interns will be entering (for instance, the job market and career possibilities in the Kerak and Tafila region, in Aqaba and Maan, or in the Jordan Valley). Such a program could also be linked with, and utilized by, NCJ's other internship programs.

NetCorps should also consider the possibility of **linking internships from multiple programs**, as well as with internships provided by similar companies such as Excellence Inc., in order to give interns with flexibility and the desire a chance to expand their possibilities. Successful interns may be directed towards further internships or job possibilities with companies and communities outside the Mother and Child Program. NCJ programs may also be strengthened by linking other NCJ internship programs with improving economic opportunities for MACP mothers. This option will be further discussed in a later section of this report focused on MACP mothers. Additionally, and NCJ intern manual might be used to standardize and integrate internships.

Taking the NetCorps internship a step further, it is worth considering the expansion of the internship program along the lines of the **Teach for America model**. Teach for America is a public service program that places recent graduates in low-income communities throughout the United States for a year of teaching in elementary, middle, and high schools. The program offers participants a crash course in teaching, a stipend to cover living expenses, and the prestige of graduation from such a highly respected program. It also brings high quality teaching into low-income communities that would otherwise be unable to attract such talent.

A program of this type would guarantee well educated, well trained, and ICT-aware teachers for public kindergartens throughout the country, increasing the quality of early childhood education offered within all communities. Interns would continue to lead Mother and Child Program classes and might also work on expanding the ICT educational possibilities within the school.

Mothers

The mothers participating in MACP are self-selecting parents of participating kindergarten students. At some Knowledge Stations, this group also contains other community members (such as fathers, sisters, aunts, and cousins) as space permits. The majority begin the program with no previous computer experience, although a few join with the main intention of participating in their child's education. Mothers who join the program have very diverse needs; some have never before touched a computer, others are illiterate, and many have only a primary school education. Many have few economic opportunities and are unaware of ICT education resources available within their communities. Only half of participating mothers surveyed for the current implementation were aware of classes available at their local Knowledge Station before participating in MACP.

Success stories among the mothers centered upon both the number of women who learned basic computer skills and upon the individual stories of raised self-esteem and personal barriers conquered. Many of the participating women came to the program with only primary or secondary educations, but with the determination to succeed. The program even helped several women battle illiteracy.

While some women joined the Mother and Child Program classes in order to participate in their child's education, many others did so in order to gain basic computer skills and further their own educations. By the end of the program, many women were on a track to gain basic skills necessary for expanding their economic possibilities. However, like the interns, these women remain in economically-challenged communities and face a multiplicity of difficulties when attempting to use these new skills outside the home.

Possibilities for growth:

- Expand the set of computer skills taught through the program.
- Actively address related needs/challenges such as illiteracy.
- Expand available economic opportunities.
- Link MACP mothers with other NCJ internships to assist with the expansion of economic opportunities.

The first option to consider is the **expansion of computer skills taught by MACP** to both mothers and children, such as typing. Most of the mothers participating in the program were highly eager to continue expanding their computer knowledge and skills. The program is currently limited to teaching both mother and child alike only the basics of computer functioning: turning the machines on and off, use of the mouse, basic use of the keyboard, and the use of the Rubicon software. From here, NetCorps selects mothers that it deems ready to take further computer classes with the Knowledge Station and subsidizes them in their continuing study. NetCorps may also wish to offer a special session to mothers on the use of computer related-equipment, such as scanners, that could expand marketability skills and economic opportunities.

Some of the greatest personal success stories from the Mother and Child Program center around several illiterate women who not only joined the program and mastered basic computer skills, but also mastered the Arabic and English alphabets. Although the current Rubicon software addressed the learning needs of this specific group, software consideration in the future might include **addressing more general needs of, and challenges faced by, mothers**, specific to each

community. This could be done either through creating MACP-specific software, or through creating a targeted list of freeware and low-fee software available through the internet and allowing interns to choose the software they use according to the needs of the mothers within their specific community.

Another path for growth for both the Mother and Child Program and NetCorps Jordan is to focus on the **expansion of economic opportunities** for participating women. In almost every case, the mothers participating in the Mother and Child Program do not work. Although some do not work out of personal choice, others do not do so because of a lack of marketable skills and economic opportunities. This is a serious need that the Mother and Child Program might address through the expansion of the program in a manner that specifically targets this lack and brings in partners who could expand available options.

This section has previously discussed possibilities for expanding the set of skills taught through MACP. In order to address the lack of economic opportunities, options include creating arrangements that allow for telecommuting, such as connecting women to jobs focused on data entry. Another option would be to partner with Aramex or a similar company that might bring in documents needing archiving. NetCorps might further expand this option by bringing in interns from its business development program, who could work with mothers to encourage micro or small business development, job sharing, and other possibilities. Joint computer purchases, for the purpose of job-sharing, may also be an option.

Teachers

Thirty-eight teachers participated in the current implementation of the Mother and Child Program. Although these women had an average of ten years of teaching experience, few had previous computer training and even fewer were aware of the potential that ICT incorporation could bring to the classroom.

The current implementation of MACP increased the involvement of kindergarten teachers in the MACP classes taught by NCJ interns. This was done in order to increase the sustainability of ICT in the classroom and the long-term usage of MACP methods and software. Teachers reported an increased comfort level with computer technology and an overwhelming enthusiasm to continue integrating ICT into kindergarten classes. However, many teachers expressed reservations regarding the teaching of computer classes without NCJ interns, and in turn many interns expressed reservations that the teachers would be able to teach the software following the end of NCJ support.

Possibilities for growth:

- Increase focus on ICT education for teachers.
- Encourage interns to work with teachers, kindergartens, and Knowledge Stations to develop solid plans for the continuation of ICT incorporation into the kindergarten classroom.

Almost all teachers expressed an interest in **continuing computer education classes** at their local Knowledge Stations. NCJ should consider funding dedicated teachers in continuing education classes in the same manner as it currently funds dedicated participant mothers. Another option

includes expanded training for teachers carried out by NCJ or one of its partners, or the incorporation of one-on-one sessions between interns and teachers.

In order to ensure the continuation of ICT in the classroom, some form of solid plan is necessary. Interns should be encouraged or required to work with teachers, as well as kindergartens and Knowledge Stations, to **develop solid plans** for future ICT use and to ensure that such plans are realistic.

Institutionalization

A final option for the Mother and Child Program is institutionalization of the program. Due to the targeted impact that MACP brings to early childhood education, it is worth considering working with the Ministry of Education to establish MACP as a regular, mandatory part of the national kindergarten curriculum.

MACP has clear links with national education goals, and it has been highly successful in going beyond these goals. MACP introduces basic ICT education to some of the youngest members of the Jordanian community, preparing them for future ICT education and for an educational curriculum that incorporates ICT. MACP has also become one of the most successful internship programs, bringing real-life job skills to young adults in preparation for careers incorporating both education and ICT.

In institutionalizing the Mother and Child Program, NCJ should consider options and partners that would bring computers into every kindergarten classroom, ensuring availability of facilities for all schools and students, and should also consider restructuring the internship to follow the lines of the Teach for America model, discussed earlier in this report. NCJ may also wish to incorporate commercial options such as the sale of low-cost computer equipment and software to families with young children and participant mothers.

This final option of institutionalization would allow for the continued support and sustainability of the program. It would ensure a wider reach and impact, and would allow for the creation of a nation-wide internship program. Such institutionalization into the national kindergarten curriculum would also allow for maximizing of ICT incorporation into the classroom, and may prove to be a successful model for similar programs targeting the larger body of students in primary schools.