A Gifted Education Model for Jordan: A study of Johns Hopkins University Center for Talented Youth(1)

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ABSTRACT

The aim of this study is to identify the practices and provisions of the Center for Talented Youth (CTY), a fully accredited, non-profit institute of the Johns Hopkins University. The center has earned an international reputation for the model it has developed for working with students of high mathematical and/or scientific ability. About 38,000 students each year are served through a wide range of provisions that include talent search, summer academic camps, on-line program, diagnostic and counseling center, and family academic camps. The application of the CTY provisions is examined in relation to high ability students in the context of Jordan. To reach to this goal, the researcher used a lot of methods in order to gather data, including CTY document review, meeting the CTY staff, observing a lot of classes, applying questionnaire for CTY International students, meeting the Ministry of Education’s responsibles and Jubilee institution, applying questionnaire for King Abdullah II Schools for excellences’ students in Salt city. The result showed the need to develop CTY model in Jordan for the high ability students.

Keywords: Johns Hopkins University, Center for Talented Youth (CTY), High Ability Students, Jordan.

INTRODUCTION

The Johns Hopkins University Center for Talented Youth (CTY) was established in 1979 to identify and serve students with outstanding academic talent (Barnett, Albert & Brody, 2005). CTY began with a seventh grade boy from Baltimore who had exhausted all the options for math courses he could take at school by the time he was thirteen. Julian Stanley, a professor of psychology at Johns Hopkins University and the founder of the Center for Talented Youth, worked with the boy and his family to arrange access to challenging college math courses so the boy could continue to develop his academic talents and pursue his passion (CTY summer program catalog, 2014). Starting with a few students in 1979, CTY has now seen over one million young people walk through its doors and has gone beyond its national borders to reach children from throughout the world (Ybarra, 2005). For pre-university students who qualify on above-grade-level tests (the US SAT, example in the case of students in grades 7 and 8), CTY offers admission to summer academic camps and year-round online programs. Summer programs are located on 23 campuses from Johns Hopkins and Princeton in the US East to Stanford and UC Berkeley in the West (Jones & Ishak, 2013, p. 585). Students admitted are in the top 5 per cent of the population and the programs and courses designed to meet their special needs. Sometimes there may be only one or two students in a school who qualify and few schools can run courses just for them, the author discovered.

CTY summer programs are offered at several age levels, and the author had ample opportunity to observe their courses, meet students, faculty, and site staff and discuss their experiences at a number of locations. Common to all courses and programs the author observed

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is the aim of giving exceptional students an academic experience that challenges them, encourages innovation and develops critical thinking skills. Yet the courses proceed in a comfortable camp setting where collaboration in an academic community is a central part of the experience. No grades are needed by these students and none given.

Summer programs are held in two three-week terms and some 10,000 students from all over the US and the world participate. Another 14,000 enroll in CTY online courses (Annual report, 2014). To give the reader some idea of what these courses might look like, the author will list several typical ones for students in grades 7-10:

- Probability and Game Theory
- International Politics
- Civic Leadership Institute (at Johns Hopkins and UC Berkeley only)
- Introduction to Biomedical Engineering
- Ethics
- Fundamentals of Computer Science
- Philosophy of Mind
- Astronomy
- Principles of Engineering

These courses, as best the author could determine, are taught at the university level and some like Principle of Engineering earn college credit.

CTY is managed by a Johns Hopkins staff in Baltimore whose executive director is responsible to the University’s Provost. Like its parent, CTY is not-for-profit and accredited by the Middle States Association. CTY also maintains offices in Los Angeles and Hong Kong. It shares a common heritage with similar programs at Duke and Northwestern Universities, both established with the help of CTY’s founder, Professor Stanley Brody, 2009, p.1003).

The author own particular interests in the CTY program goes back to the three reports. The first one to the several Arab Human Development Reports; especially 2003’s “Building a Knowledge Society”. These reports were written by Arab scholars under sponsorship of the United Nations Development Program. The 2003 Report noted that “Arabs once led the world in science and technology but are dropping ever further behind in scientific research and information technology.”(AHDR, 2003, P. 4). The Report called for an Arab knowledge renaissance that would be “a powerful driver of economic growth…”(AHDR, 2003, P. 5).

The second one to a chapter in international Handbook on Giftedness, wrote by Subhi-Yamin at Ulm University, Germany in 2009, noted that " in Arab countries, the picture of gifted education is far from rosy particularly in the case of small developing countries such as Jordan, Lebanon, Morocco, Sudan, Syria, and Yemen which are currently undergoing political, economic, and social upheavals that leave little time for matters such as providing special provision for gifted and talented children"(Subhi-Yamin, 2009, P.1488). This chapter suggests “establishment of a network that provides a forum of exchange, provide information, support, encouragement, examples, and ideas, to strength opportunities for both the gifted and their countries”. In addition, "the network could branch off into research areas, provide an arena for follow-up studies, stimulate planning efforts, provide a way of sharing concerns, serve to illustrate what giftedness means to emerging nations, and promote international awareness"(Subhi-Yamin, 2009, P.1489).

The most recent one to several The Atlas of Islamic-World Science and innovation Reports; especially 2013 "Jordan Case Study". This report were written by Mahroum and his colleagues with supported from Royal Society and another nine partner organizations. The report described the national innovation system in Jordan as a “traffic jam” of organizations characterized by duplication and dilution of effort. Currently, Jordan Lacks a national innovation policy. The national education system should move away from an emphasis on memorizing facts and move towards teaching problem-solving and critical thinking, as the report described the education system in Jordan.

The three Reports’ recommendations line up well with the CTY model in the US and the locally operated programs CTY has established from Ireland to Hong
Kong. The author was interested in learning about these international versions of CTY and pursued this interest with help from CTY’s international staff.

Some of these international programs are the Irish Center for Talented Youth, which established in 1992 with activities include talent identification, teacher training, support for parents, research, summer residential and non-residential programs and all year round correspondence courses (Gilheany, 2005).

The Center for Talented Youth Spain, which established in 2003 with activities include out of level testing, summer program and annual courses (Touron, Touron & Silvero, 2005).

The National Academy for Gifted and Talented Youth (England), which established in 2004 with activities include summer school but without testing the students (they rely on curriculum awards) (Frost, 2005).

Malaysian model PERMATapin tar, which established in 2008 adapted from CTY. This model includes out of level testing, three week session summer program and online courses (Jones & Ishak, 2013).

Out of level achievement in New Zealand. New Zealand was consider the CTY model of acceleration and out of level testing for their students (Horsley, 2009).

CTY USA has some well-known alumni who have led the knowledge economy worldwide. Among them are former CTY students like Mark Zuckerberg (Facebook founder), Sergey Brin (Google co-founder) as well as Nobel Prize and Fields Medal winners. Their success is not simply a matter of chance. As Schrag at University of Wisconsin (Madison) pointed out in a March 2010 Education Week article, US knowledge economy builds, in large part, on out-of-school programs like the Center for Talented Youth and the Intel Science competition, the two examples he sites (Schrag, 2010).

Against this background, the author used her grant to study CTY, its theoretical foundations, talent identification methods, pedagogy and operations. She also delved into CTY’s efforts to open its programs to high talent among those students whose families could not pay its tuition, an essential component in a country like Jordan. Boiled down to their shortest versions, my research questions were: how does the CTY program work and could it be adapted to Jordan and the larger Arab world as one step in an Arab knowledge renaissance?

The approach to the research

The purpose of this study is to identify practices that support students of high academic ability, with additional focus on students from under-represented groups and to identify current practice for meeting the needs of high-ability students in Jordan to consider the applicability of CTY provisions in the Jordan context.

Methodology

The methodology involved:

- Interviews with more than 52 CTY faculty and staff at all levels.
- Observe summer programs and online courses, particularly the teaching methods that appear to be quite different from those employed in most schools in Jordan.
- Collect CTY materials.
- Administer a well-developed survey-reviewed by three faculty staff in JHU (content validity)- to 1500 international students in CTY summer programs after the author passed the JHU research standards test. The sample consists of 254 subjects from 35 different countries with age ranged from 8-18 years old and grade ranged from 3-12. The most of them came from Hong Kong 81, China 60. The number of Arab students were 17 came from UAE, Kuwait, Saudi Arabia, Oman and Morocco. The students enrolled in more than 69 different courses.
- Interviews Jubilee institute academic director, head department of special education(Ministry of Education-Jordan), and King Abdullah II Schools for excellence director in Alsalt.
- Administer a survey– reviewed by two faculty staff in
Al-balqaa Applied University (content validity)- for
King Abdullah II Schools for excellence students
sample in Alsalt-Jordan, which consist of 71 subjects
with age ranged from 11-17 years old.

Research Questions:
The research questions evolved from an on-site, in-
depth review of in-house data and literature that pertained
to Johns Hopkins University Center for Talented Youth
and the programs and provisions the Center offered to all
high-ability students, including those from under-
represented groups. Hence the evolution of a set of
research questions that reflected emerging data:
1. In what ways does CTY identify students for
inclusion in the programs designed for students of
high academic ability?
2. What support structures/provisions does CTY provide
for those students who are recognized as having
exceptional mathematical and or/ verbal reasoning
abilities?
3. What challenges have CTY staff encountered and
what strategies have they implemented to respond to
these challenges?
4. What positive outcomes have been identified for
students following their participation in CTY
programs?
5. What role do schools have in CTY programs?
6. What planning does CTY have in place to ensure
sustainability of its programs?
7. In what ways does CTY support students who qualify
for its programs but are from families unable to
support their involvement due to financial
constraints?
8. What evaluative measures are employed to ensure
CTY has representation from all ethnicities, including
students from ethnic minority groups?
9. What evidence does CTY have that shows the effect
of each of its programs?

Data collection
Guided by these points, several methods of data
collection and analysis provided information for this
inquiry. Much of the CTY data collection was reliant on
document review, with many of those documents being
“in house” and available only on site. Whereas some
documents were in the public domain, others were
interview or questionnaire responses from parents or
students who had provided the data to CTY in full
knowledge that the information would be used for
research purposes. International students who attended to
summer courses were responded to a questionnaire they
had full knowledge that the information would be used
for research purposes, according to Johns Hopkins
University policies on such information. CTY staff
participated in informal interviews using these data to
supplement reports and information in the on-line
databases. The Jordan data were available in the public
domain on Ministry of Education and other websites,
others from the informal interviews to gifted schools’
principles. Gifted students in King Abdullah II Schools
for excellence were administered to a questionnaire.

The statistical components of these data will entered
into SPSS to produce further tables and carry out
analyses of frequencies.

Triangulation
In this study it is possible to triangulate between types
of data, using quantitative data to verify themes that
emerged from the qualitative data.

Finding and discussion

Question 1:

In what ways does CTY identify students for inclusion
in the programs designed for students of high academic
ability?

Finding

Identification of students’ eligibility to access a range
of CTY programs is determined through out-of-level
testing that is at the heart of its national and international
talent search.

In addition to cultivating a better understanding of the
needs of talented youth, the focus of CTY is on offering high ability students and their families a range of programs and services that are targeted at further enhancing students’ personal academic development. Students are identified for a range of CTY programs through out-of-level mathematical and verbal reasoning tests. As Carol Mills reports in educator guide for talent search 2013-2014 “Above-grade-level testing is what makes CTY’s talent search and testing different from the testing that students usually encounter”. Students who perform at or above the 95th percentile in school testing are invited to participate in the talent search which compromise out-of-level testing on one of these tests: SCATs (Albokai, Alomari, Alrahamneh, 2014) or SATs or ACTs or SBT.

Students who are in the lowest 20% percent of test takers are qualified to enroll in the family academic program. They are not eligible to take summer courses or online courses. Students who earn higher scores in the range of (20%-75%) of all testing students, may take the summer program “Academic Exploration AE” and/or the online program. The students higher than 75% of the all students will take summer program “Intensive Study IS” and/or the online program. CTY calls these students the top of the top.

This finding supports each of the CTY international models except England model.

How does this relate to the Jordan context?

There is currently no single standardized test that is used to identify academic giftedness non above-grade-level. In Jubilee Schools the criteria includes academic excellence (a minimum average of 90% in the last three semesters), pass the Jubilee School’s Scholastic Aptitude Test; OR pass the special test for admission to the General Certificate of International Education Program (IGCSE), and pass a personal interview and other intelligence tests for the students in grades 9 & 10 at the beginning (Jubilee institute yearbook, 2012-2013). King Abdullah II schools for excellence the students should pass the cognitive abilities determined from the Ministry of Education for the students within a ratio of 5% of the students who have the highest rates in the basic sixth grade (brochure of Ministry of Education, 2012-2013).

Question 2:

What support structure/provisions does CTY provide for those students who are recognized as having exceptional mathematical and or verbal reasoning abilities?

Finding

CTY provisions for high-ability students include access to a range of programs and resources that engender high-level learning and encourage critical thinking.

The breadth of tiered services offered includes:

- Admission to the Study of Exceptional Talent (SET) for those very top-scoring who exhibit extraordinary mathematical or verbal reasoning ability by scoring 700-800 on either the Mathematical or Verbal (Critical Reading) part of the SAT before the age of 13 (Brody, 2009, p.1005).
- Participation in CTY summer program “Academic Exploration AE”, CTY summer program “Intensive Study IS”, CTY On-line. In addition the Center offers Spatial testing, counseling to help them identify the educational opportunities that will meet their needs. SET’s publications (Precollege Newsletter and Imagine magazine) and internet resources (Cogito.org and SET listserv), also serve to inform SET students about too many challenging supplemental opportunities they might consider.

The Center assists funding for students from low-income backgrounds. Each of these aspects-programs, funding, testing and counseling- is administered by groups of staff who co-ordinate and evaluate the programs on offer, while offering support to both students’ families and schools.

How does this relate to the Jordan context?

At this time, Jordan does not offer a sustained approach to supporting high ability students, but rather a Summer Orientation Program (for new students), inventions course, community service program, academic advising, scientific research methodology course,
graduation projects and college & career counseling in Jubilee school. CTY therefore, might offer an interesting extension of Jordan's existing efforts.

**Question 3:**

What challenges have CTY staff encountered and what strategies have they implemented to respond to these challenges?

**Finding**

The biggest challenge that the CTY staff faced is how the CTY can reach to talented students who are coming from low-income families and/or from minority ethnic groups, and if they reach them, how they could bring them to CTY?

Other challenges CTY staff face are finding the best teacher, developing the tests and making online program and summer program work together.

The cost of the CTY different programs are high, which make it impossible to attend in CTY programs for those students who are talented and high potential but are coming from low income families or are from minority ethnic groups. This biggest challenge related to funding that coming from different resources which are very important to sustain the level of some programs currently available to students from minority ethnic groups, and/or students from low socio-economic background. The whole CTY staff works continuously to attract and maintain levels of funding from different resources, government, state, donors and private institutions. There are at least two programs-that had been evaluated and found to be especially effective for minority students-have ceased, due to a lack of funding, as most of the CTY staff report.

Other challenges pertain to employing appropriate staff, with prospective instructors required to have a degree, strong content knowledge in the content area, the ability to use a range of pedagogical practices shown to facilitate learning with students or high academic ability; Passion to teach because they will work for a long time a day; experience with age group they will teach especially with young students and creativity also. Lesson plan is not a lecture, got must employ flexibility and changing strategies. Teachers can easily move from one task to another, ego resilience. They must accept that some kids are smarter than the instructors and maybe would ask the teachers questions they didn’t know the answer. Staff comments indicate that reaching all of those teachers goals is on-going process, with teachers for summer programs sometimes identified through word of mouth, recommendations of other summer program staff members. Some staff members are graduate students; others are trained teachers; most have master degrees or are university staff.

Other challenges for the sites managers (administrative heads) at the CTY sites are to build and create community with all CTY staff who never knew each other before: site director, academic dean, academic dean assistance, dean of students, dean of students assistance, academic counselor and office manager. Also, to explain to them it is not a regular school, students must have fun but at the same time must be challenged.

Supporting the finding above, the questionnaire responses from international students showed that 98.43% like CTY summer course and wrote positive phrases for their experience (more challenging, interesting, fun, amazing, covered a lot of different topics, awesome, everyone is smart, great, flexible, intensive, better than regular school, different….), while 1.57% found it similar and normal. 84.6% choose "a great deal" option for if they like their CTY course, 13.0%" somewhat", 2.4% " not that much" and 0.0% " not at all". As shown in figure1 93.70% like too many things in their summer courses (small class size, challenging, no pressure at all, helping, amazing teachers, courses, learning new things, people, make friends, fun, instructors were just perfect, like all of it, experiments…….), while 6.30% don't like it(boring, too easy, not challenging, people too far from me, dishes and food..).

This finding supports each of the CTY international models.
How does this relate to the Jordan context?

The biggest challenge faced King Abdullah II Schools for excellence and Jubilee institute is financial support. King Abdullah II Schools for excellence needs facilities to meet the needs of those high ability students, the curriculum are boring and don’t meet challenge for those students. Also, there are not any future plans for these schools. Other challenge is to know how to identify high ability students in the right way as the principle of one of these schools report. It is worth noting here that CTY is a supplemental program, not one that replaces schools. It could add to what Jordan is already doing without being disruptive.

Question 4:
What positive outcomes have been identified for students following their participation in CTY programs?

Finding:
Internal and external evaluations of CTY have established that those students who participate in its programs report academic, social and personal benefits. Also, the finding of the survey showed that the students report social, academic and personal benefit gained from CTY’s summer courses.

CTY regularly evaluates its programs and provisions. Post-program outcome measures have identified positive perceptions of CTY experience by both students and parents.

Summer Program courses are extensively evaluated, and student outcomes have been the focus of numerous research studies over the years (Ablard, 2001-2007, Mickenberg & Wood, 2009, Kasahara, 2010-2012). With the help of a grant from the U. S. Department of Education, CTY’s Research Department was able to identify, collate, organize, integrate, and analyze over 30 years of research findings, evaluation data, alumni surveys, interviews, and unsolicited letters/e-mails from students and families regarding the benefits and outcomes of participation in CTY’s Summer Programs. The finding showed that 68% of the students report academic* benefits (acceleration in their school’s curriculum, increased motivation to attend college and preparation for college, increase in academic confidence, skill development in thinking, studying, and time management). Social* benefits gained reported by 54% of the students report (bright friends, felt belonging, social–support network and socially adept and confident). While 46% of them report personal* benefits (maturity, independence, life- long learning, self-discovery, and open minded) (The benefit of CTY summer program, 2014).

Some instructors report that CTY students are more self-confident and more challenged because they can express their ideas and thought freely without fear from

*Whether in isolation or in combination with other types of benefits.
less gifted peers and they are around other high potential and highly motivated students. In addition, when students resided on a college campus they would experience living far from their parents and will be ready for the college experience in later years.

Supporting the finding above, the international students report benefits that fall into three major domains and often overlap across the academic, social and personal. As the finding showed, the largest percentage of international students (74.80%)* report academic benefits (I learn too much, in depth understanding, academic knowledge, learning new things...), (35.82%)* report social benefits(make great friends from all over the world, friends with other bright students..), (17.71%)* report personal benefits(self-confidence, independent, cooperate, comfortable, self-studying methods..). While 1.98% report no benefit at all from CTY summer program. In addition, 90.16% like to return to CTY next summer (I'd love to, definitely, I will, for sure..), while 9.84% won't return to CTY (I don't know, I can't because I will attend college, it is too expensive ,no time in the summer...).

Online program courses are also evaluated extensively (Wallace, 2005). The most recent study evaluated the online courses from 2005-2013 showed that the vast majority of students think that the courses are demanding, and the majority thought the level of intellectual challenge was “appropriate for me,” 4.3% said that the course was either too demanding or not demanding. This information is critical to ensure proper placement for high ability students, so that they learn something new every day (Wallace, 2014).

Some faculty members report that some students are shy in regular schools and they can’t express their ideas in front of other peers, so CTY’s online program would be a great place for such students. In addition, regular schools would be boring for brilliant students and on-line courses could meet their challenges because students will work at their individual pace, and the courses help them to solve problems and be creative from their experience and by their exploration.

The finding of the survey showed that 21.26% of the international students enrolled in CTY online courses (math, physic, web design, writing, crafting the assay, young reader...) whereas 78.74% haven’t enrolled.

The all international CTY models evaluate the effectiveness of provision for talented students.

**How does this relate to the Jordan context?**

King Abdullah II Schools for excellence and Jubilee institute didn't evaluate the effectiveness of provision for Jordan's' gifted and talented students.

There are some local and international competitions the students in Jubilee institute participated in, such as international Intel-ISEF competition-USA; Arab Intel-ISEF competition; Green flag eco contest for Jordanian schools, Local film competition, National robotics competition..(Jubilee institute yearbook, 2012-2013).

**Question 5:**

What role do schools have in CTY programs?  

**Finding**

Schools may nominate students for participation in CTY's talent search. In addition, CTY recognizes teachers who have played a role in the success of high ability students.

There are eight key areas where schools and CTY practices are interwoven.

1. Schools may nominate students to undertake out of level tests. One example of this is where one of the state(public) schools- Friday Harbor Schools in San Juan Island in the state of Washington- actively nominates students for inclusion in CTY program especially for the CTY scholars. This school is among who do the same for their top students.

2. CTY staff sends brochures to most schools about CTY, then the counselors there talk to parents and tell them about CTY and if they have any who is talented to come and participate in the CTY talent search.

3. CTY outreach team works closely with school officials and community organizations to identify and invite under-represented students to participate in
CTY’s Talent Search and academic programs, with financial assistance available every step of the way.

4. Schools perceiving that they are unable to meet the needs of high-ability students may choose to enroll them in CTY on-line courses if the students qualify on the talent search.

5. Students and their parents are encouraged to share their CTY reports and experience with their schools.

6. Some schools let the students who participate in CTY on-line courses to leave their regular class and go to the lab to take the on-line class. At some schools every week one staff from CTY on-line program visits the schools to meet the students who participate with on-line courses to discuss with them and to learn if they have any question.

7. The CTY invites extraordinary teachers to participate in the Sarah D. Barder Fellowship program. This program includes an annual conference for those teachers who have been selected by CTY, based on students’ nomination.

8. CTY counseling staff prepare intensive report for schools and teachers with practical suggestions to help them understand and to support the twice exceptional high ability students in the classroom. Some teachers and counselors hold interviews with the CTY counseling staff and ask them to give recommendation for such special case.

According to the finding from international students, 49.6% attended in international, 28.7% in private and 21.7% in state (public) schools, as shown in figure 2.

50% were in special class (gifted and advanced classes) and 50% were not.

31.5% heard about CTY from school, 37.0% from friends and 50.0% from parents, as shown in figure 3.

67.7% was their first summer in CTY, 18.1% 2nd, 9.4% 3rd, and 4.7% more than 3, as shown in figure 4.
How does this relate to the Jordan context?

Some schools in Jordan if they could nominate the highest 5% of their students to gifted schools.

The finding of the questionnaire that administer in King Abdullah II Schools for excellence in Alsalt, showed that 1.40% attended in international, 45.07% in private and 53.52% in state(public) schools. 8.45% heard about the school from friends, 38.02% from school and 53.52% from parents.

5.63% enrolled in summer program and 94.37% haven't enrolled in any summer program for gifted.

2.82% didn't like to enroll in any summer program for gifted and 97.18% like to enroll (music, language, robots, physics, science, math...). Summer program would make them learn new things, discovering, develop their selves, critical thinking, open-minded...as the students report.

Question 6:
What planning does CTY have in place to ensure sustainability of its programs?

Finding

There are three pillars that are essential components of any sustainability decision. These are: society, environment and economics (Horsley, 2009). CTY and CTY scholars and SET and CTY Rural connections scholarships and Jack Kent Cooke Foundation, provide evidence of their contributions to each of these pillars.

Society: perusal of the SET database shows that these exceptional students are high-level contributors to knowledge in society. According to the longitudinal studies from 1980-2010 in the SET department, the finding showed that most of SET students hold postgraduate qualifications from high prestige universities. At least 15% of the SET alumni attended Harvard University, at least 9% attended MIT, and at least 30% attended an Ivy League university. Some of them complete Master and/or Ph.D. M.D. over 23% of all both male and female SET alumni complete a Master’s level degree. Over 24% of all both male and female SET alumni complete Ph.D. SET alumni work overwhelming in knowledge-intensive sectors (Computer Software, Education-Higher, Financial Services, Health Care, and Engineering...). In addition, some SET alumni have obtained academic faculty positions (Math, Eng., Physics, Humanities, Medicine, and Economics...) (Brody, 2010).

It is the belief of CTY Scholars’ staff that leaders are needed from all walks of society and students receiving scholarship provide opportunities for students from low-income families and from groups traditionally underrepresented in higher education to develop and further their leadership skills. Perusal of student biographies shows evidence that these students demonstrate leadership through contributions to a range of voluntary activities, including working in research, participating in sport activities (serving as a captain), on school councils and through engagement with other forms of community service (Johns Hopkins CTY scholar, 2014).

Economic: In a non-profit organization, funding is an on-going constraint. In all CTYs’ programs, summer, online, family academic, and diagnostic & counseling services, most parents pay for their child’s participation (tuitions). These total sources pay for the salaries, general services & administration, research & program services, and student aid. Some provisions are reliant upon donations and also the staffs whose roles are associated with those provisions are also dependent on CTY retaining or increasing levels of funding (Annual report, 2001-2014). There are processes in place to ensure that donors are acknowledged and made aware that their contribution is valued.

Environment: CTY Rural Connection scholars (who are supported by a foundation grant) ask parents and students to talk to other families about CTY and tell them about its programs. CTY Scholars ask students to be volunteers in places they are interested in. For example, some of the students want to be doctors, they volunteer in a hospital and shadow a doctor.

How does this relate to the Jordan context?

Society: There are no longitudinal studies in either
King Abdullah II Schools for excellence nor Jubilee institute for their students and where they are now, rather than they report that their students enrolled in Jordan University, Yarmouk University and Hashemite University.

Economic: King Abdullah II Schools for excellence is a government school, so they take funding from the Ministry of Education.

Jubilee institute is an independent, non-governmental, nonprofit, co-educational, partly-residential secondary school. In all Jubilee’ programs most parents pay for their child’s participation according to their year income report (tuitions). The rest of incomes came from Ministry of Education, Ministry of Finance, King Hussain Foundation, His Majesty King Abdullah II, King Hussain Foundation International and parent contribution (Jubilee institute yearbook, 2012-2013).

Environment: one of Jubilee requirements to fulfill a minimum of 120 hours of community service.

Question seven:

In what ways does CTY support students who qualify for its programs but are from families unable to support their involvement due to financial constraints?

Finding:

CTY has identified a number of programs to support students who demonstrate high academic ability but may have financial constraints. Some of these programs have stopped, some of them still running.

- The Skills Reinforcement Project. The aim of (SRP) Project was to prepare students from under-represented groups (poor students) for course work described as academically demanding (Durden & Tangherlini, 1994). This program has stopped, but has provided much good data experience.

- The Jack Kent Cooke Young Scholars Foundation provides individual opportunities for exceptional students who have financial need (Jack Kent Cooke, 2014). This program has ended when the grant funding ended.

- Johns Hopkins CTY Scholars (Toyota Foundation), was developed in 2004 to identify high potential 8th grade students from low-income families and from groups traditionally underrepresented in higher education. This scholar prepares these students for top levels of academic achievement and leadership through two CTY summer programs, parent training, academic advising, an academic and extracurricular pan, mentoring, SAT preparation and college counseling (Lohrfink & Kimberly, 2011).

- The Rural Connection Scholarship, which founded in 2012 by the Jack Kent Cooke Foundation. This scholarship supports high-achieving/talented/gifted students from 7th to 9th grades living in rural areas by offering an award for full tuition, room and board to attend a three week CTY summer residential program. In addition to educational advising, links to educational resources, and scholarship opportunities to rural students and their families (Rural Connections scholarship program, 2014).

- The Outreach Program emerged in 1999 to recruits high-potential students from groups traditionally underrepresented in gifted programs and from families of low or modest household income. In addition, this program concentrates on urban areas (Barnett, DuSel & Gustin, 1990-1991). It is the general name for many CTY efforts and receives founding from CTY parents and alumni.

How does this relate to the Jordan context?

The Ministry of education staff don’t seek students from low-income families (poor students). Instead the schools from the all area in Jordan nominate the highest 5% of the students.

Jubilee institute staff visits rural schools every year to provide them with Jubilee brochures and the criteria for admission. Also, they have Scholarship Fund to provide scholarship or financial aid to students who could not afford to attend school. The full scholarship covers tuition fees while partial scholarship/financial aid amounts vary depending on the students need.
Questions 8:
What evaluative measures are employed to ensure CTY has representation from all ethnicities, including students from ethnic minority groups?

Finding
Longitudinal data show that there are many ethnicities represented by students participating in each of the CTY programs. In addition, there are programs that target specific under-represented groups.

Much of the research emanating from CTY is longitudinal and is used to disseminate the program benefits to current and prospective parents, educators, researchers, potential donors, in addition to informing future CTY practice. These data included one question to describe him/herself as American Indian or Alaskan Native, Asian American or Asian origin, Black or African American, Latino or Hispanic, White or Caucasian, Native Hawaiian or Pacific Islander, South Asian origin, Others, Blank or Unknown, and Unspecified. In 1998, fewer than three percent of all children enrolled in CTY’s summer programs came from underrepresented minority groups or were supported by financial aid. In the past years, enrollment into CTY by underrepresented and disadvantaged students has increased to over 12% in 2005 (Ybarra, 2005) and to over 18% in the CTY summer programs 2013.

This finding supports the whole international CTY models.

How does this relate to the Jordan context?
King Abdullah II Schools for excellence was for the Jordanian students. Only since 2014 they start to accept other nationalities from Syria, Iraq.

According to the data for 20 years in Jubilee institute, the students came from the whole country in Jordan and from other countries such as Iraq, Kuwait, Saudi Arabia, Palestine and Algeria. In numbers the students from Amman 1897, Zarqa’ 107, Irbid 82, Balqa’ 59, Jarash 42, Ajloun 19, Mafraq 32, Madaba9, Karak 25, Tafelah 10, Ma’an 10 and Aqaba6.

And from Arab countries, Iraq 2, Kuwait 1, Saudi Arabia 4, Palestine 2 and Algeria 1 (Jubilee institute yearbook, 2012-2013).

Question 9:
What evidence does CTY have to show the effects of each of its programs?

Finding
There are two pillars that are the essential components of any program. These are: internal and external evaluations (Alhar & alrooby, 2010). CTY houses a database of all research conducted by staff pertaining to programs that emanate from CTY. In addition, there is also external evaluation of CTY programs completed in 2014 for five years from Middle State Association of Colleges and Schools (MSA).

Annual reports consider a range of aspects relating to CTY programs and students involvement. Longitudinal data have been collected to consider the CTY scholars students, and those students who attend summer camps, on-line courses and family academic program. A database of the students who scored highest in SAT tests and were invited to become members of SET is maintained and updated to show students career trajectories after they leave high schools and university, in addition names of all donors.

External evaluation of CTY programs is conducted by through Middle State Association of Colleges and Schools (MSA). CTY first earned accreditation in 2004, CTY’s accreditation was renewed in 2009 for five years. CTY’s accreditation expired on December 1, 2014, and the organization was finished its re-accreditation self-study. For this accreditation, CTY used the “Excellence by Design” protocol which involves a year-long self-study of all of CTY, followed by a visit by an evaluation team appointed by MSA, in July, 2014. The report finished in December, 2014 and the CTY accredited for gradesK through 12 by the Middle States Association of Colleges and Schools Commissions on Elementary and Secondary schools.
How does this relate to the Jordan context?

Unfortunately, there isn't any database of any research conducted by Ministry of Education staff to evaluate the King Abdullah I Schools Award for excellence.

For Jubilee institute, the academic director said that they evaluate their work, but it is for the Jubilee staff only not for publishing them. But they don't have accreditation and they don't need it as the academic director report.

Recommendations

Based on the finding of this study and the finding of other international CTY models of provisions for high-ability students, a number of practices have been identified that Jordan educators ought to consider in order to meet the needs of this country’s most able students. These include:

- Developing national criteria for identification of students of high academic ability.
- Considering ways to identify students of high-ability and also with financial constraints and from urban schools where most poor students live.
- Identifying and acknowledging teachers who exemplify outstanding practice in their relationship with high–ability students.
- Ensuring that any Jordan programs organization to support students of high academic ability also have evaluative practices built in to them and consider sustainability from their inception.
- Ensuring that any projects that support students of high academic ability incorporate research in the projects from their inceptions.
- Search for those students who they have exceptional talent in Math, Science and any other talent and support them.

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* Internal Evaluation documents are not for public distribution.
نموذج تربية الموهوبين للأردن: دراسة مركز الشباب الموهوبين في جامعة جونز هوبكنز

هياء البقاعي

ملخص

هدف هذه الدراسة للتعرف ودراسة مركز الشباب الموهوبين في جامعة جونز هوبكنز ومجالات الاستفادة من هذا النموذج في الأردن. هذا المركز غير الربحي الحاصل على اعتماد عالمي في تنمية ورعاية الموهوبين والطلبة ذو القدرات المرتفعة في الرياضيات والعلوم. يستقبل هذا المركز سنويا حوالي 38000 طالب في أمريكا وفي كافة أنحاء العالم للقبول في برامج متعددة تتضمن البحث عن الموهوبين، والبرامج الأكاديمية الصيفية، برامج التعليم عن بعد، والتنشيط والرشاد، والبرامج الأكاديمية الأسرية.

وتحل هذا الهدف، استخدمت الباحثة العديد من الطرق لجمع البيانات، والتي شملت مراجعة الوثائق، مقابلة كادر المركز، وتطبيق استبانة على الطلبة الذين يدخلون المدرسة، ومحاولة صورة المراقبة، وتحليل القسم، وتبليغ المسؤول عن البرنامج الصيفي، وملاحظة العديد من الصفوف، ومقابلة موظفين في وزارة التربية والتعليم الأردنية ومعهد الويسبيل ومدرسة الملك عبد الله الثاني للتميز في السلط، وتطبيق استبانة على طلبة مدرسة الملك عبد الله الثاني للتميز.

بينت النتائج الحاجة الماسة لتطوير نموذج مركز الشباب الموهوبين في الأردن للطلبة الموهوبين.

الكلمات الدالة: جامعة جونز هوبكنز، مركز الشباب الموهوبين، الطلبة الموهوبين، الأردن.