

The Computer Clubhouse: The Youth's Perspective

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EXECUTIVE SUMMARY

The Boys and Girls Club of the Peninsula (BGCP) strives to give youth opportunities to use technology. In the Mervin G. Morris Clubhouse in Redwood City and the Moldaw-Zaffaroni Clubhouse in East Palo Alto, preteen and teenage youth have the opportunity to participate in the Computer Clubhouse, where they learn to use a variety of multimedia computer programs and work on creative projects. The research team sought to answer two key questions: What do youth value about the Computer Clubhouse? What are some opportunities for the BGCP to strengthen the value and utility of the Computer Clubhouse? We hope that a better understanding of what youth value about the Computer Clubhouse might help staff members make the Computer Clubhouse even more valuable for the youth.

Using a youth development conceptual framework, our literature review focused on elements of successful youth engagement outside of school. For example, positive youth development incorporates the youth voice and supports positive adult relationships. After school programs are well-positioned to provide for developmental needs that schools may not be cultivating, such as those that may help them to succeed in a twenty-first century workplace. Technology-based after school programs in particular provide a unique opportunity for youth to pursue their interests, gain skills, and think more positively about school.

To answer our research questions, we collected data from a variety of sources. Three separate field observations of Computer Clubhouse workshop sessions gave us data on the day-to-day activities of the Computer Clubhouse. Additionally, we conducted semi-structured interviews with three key staff members and a focus group with teenagers at the Redwood City Boys and Girls Club. In our appendices, we include copies of the protocol for our staff interviews and teen focus group.

From these data, we identified four key findings suggesting what youth value about the Computer Clubhouse.

- *Youth value their relationships with staff as mentors and friends.* Specifically, they emphasized that the staff relate to them and get to know them on a personal level. In addition, youth value staff members as mentors who gave them opportunities beyond the computer skills learned in the Computer Clubhouse.
- *Youth value useful skill development.* Activities in the Computer Clubhouse taught the youth basic computer skills, such as navigating with the mouse and keyboard, in addition to more advanced skills in high-end, multimedia software programs. Youth particularly valued the practicality of these skills, highlighting that they could apply the skills they had learned to school and future job opportunities.
- *Youth value input and choices.* Youth not only appreciated the wide variety of programs they could choose from in the Computer Clubhouse, but also enjoyed designing and shaping their activities within the chosen programs. Computer Clubhouse members became more engaged when they were asked open-ended questions and given the opportunity to make key choices about their projects.
- *Youth value the opportunity to broaden their horizons.* In some sessions in Redwood City, staff and volunteers discussed life outside the Boys and Girls Club, including other areas of the world and the value of education. Additionally, a few youth have the opportunity to travel around the country for Computer Clubhouse-related competitions or conferences, allowing them to experience and interact with a world beyond their immediate horizons.

Although we saw considerable evidence of youth engagement and learning, we saw opportunities for the Computer Clubhouse to become even more effective and valuable for the youth. The research team identified six opportunities for growth, all of which involve resources already available within the Boys and Girls Clubs.

- *Increase awareness about the Computer Clubhouse within the BGCP.* We see greater opportunities for “getting the word out” and thus increasing the number of youth who can benefit from Computer Clubhouse programs. Including the Computer Clubhouse on the BGCP tour, putting up posters, and having a “bring a friend” day might help to draw in new youth.
- *Showcase members’ work in the broader community.* To increase awareness about the Computer Clubhouse as well as encourage member interest and commitment, staff might consider opportunities to exhibit the youth’s projects to a wider audience, such as parents and community members.
- *Strengthen coordination between the two Computer Clubhouse directors.* This would ensure that both programs’ goals are aligned with one another and with the BGCP mission. Additionally, staff could use time together to plan workshop activities and objectives.
- *Implement a hands-on learning environment from day one, leveraging the technology expertise of the directors.* Structuring the workshops so that the youth begin using the computer programs earlier in the year will encourage member interest and commitment. Staff can model certain techniques while the youth follow along on their own computers. Giving youth the opportunity to try out the

programs from the outset will enable regular attendees to progress swiftly to advanced skills, guided by the extensive knowledge of the staff.

- *Establish and communicate specific workshop objectives.* More purposeful workshop objectives will enable an intentional learning environment. In addition to emphasizing skill-based learning, the Computer Clubhouse should also include space for youth exploration.
- *Restructure workshops and room to promote a balance of modeling, guided practice, and independent exploration.* We think these three instructional techniques should all be a part of the Computer Clubhouse program. Physically rearranging the Computer Clubhouse room can support this structure, which we believe will increase the value of the Computer Clubhouse for youth.

The research team’s findings emphasize how the Computer Clubhouse is valuable for the youth who frequent it, and the team proposed a number of recommendations. A next step for key staff members would be to create a strategic plan that incorporates these findings and opportunities, prioritizing positive youth development and youth-identified valuation of the Computer Clubhouse.

INTRODUCTION

The Redwood City and East Palo Alto Boys and Girls Clubs have “Computer Clubhouses,” which are spaces within the Club where youth can use high-end computer technology. Outside foundations support these two Computer Clubhouses, along with 120 others around the world. Youth ages 9-12 use the Computer Clubhouse during the first “block” session, which takes place between 4:30 and 5:30 p.m. each weekday afternoon. From 6:30 to 8:00 p.m.,

the Computer Clubhouse transitions to a space exclusively for teenagers, a shift mirrored in all of the Boys and Girls Club activities on a daily basis.

The mission of the Boys and Girls Club of the Peninsula (BGCP) in general and the direction of the Computer Clubhouse in particular have both evolved recently. The focus of the Boys and Girls Club has moved beyond simply providing a safe space for youth. Now, the BGCP's primary goal is to have youth graduate high school with a plan for postsecondary education. The Computer Clubhouse strives to contribute to this goal by serving as an incentive to draw youth in, showing youth something "cool" and building a relationship with them. Once relationships are established, staff members are then poised to ask youth how they are doing in school. If needed, staff can connect members to a tutor or other academic resources. In previous years, using the Computer Clubhouse to encourage academic success had not been a strong focus.

Since its inception in 2002, the Computer Clubhouse had always been a project-based, unstructured learning environment in which youth could experiment and play with various programs. When staff realized that the youth were not taking things to the next level, the staff instituted workshops that run for three to four months. These workshops include training in Photoshop, ACID (a disc-jockey program), and Windows Moviemaker. Additional features of the Computer Clubhouse include video production and a recording studio. In order for staff to better assess the impact that this new structure will have, they want to implement pre- and post-tests for the workshops.

We conducted research in order to explore what youth in the Redwood City and East Palo Alto clubhouses think and value about the Computer Clubhouse. Our research questions were as follows:

- What do youth value about the Computer Clubhouse?
- What are some opportunities for the BGCP to strengthen the value and utility of the Computer Clubhouse?

Through observations, interviews, and a teen focus group, we investigated the activities of the Computer Clubhouse and the meaning youth attach to them. We hope that a better understanding of what youth value about the Computer Clubhouse might help staff members make the Computer Clubhouse even more valuable for the youth.

LITERATURE REVIEW

The literature on positive youth development and effective after school programs recognizes that youth have some needs that must be met to facilitate both successful passage through adolescence and a positive transition into adulthood. Dozens of researchers have outlined critical components to healthy development, all of which constitute similar conclusions. Pittman and Wright (1991) identify six adolescent needs that effective programs should encompass. Those needs are: safety and structure, belonging to a group, and close relationships with staff, self worth and social contribution, independence, and mastery or competence of useful skills. The last three needs particularly apply to teenagers. Research and common sense tells us that if these needs are answered in the development of young people, they have a better opportunity to find a meaningful and productive place in life. The six identified needs provide a blueprint for the design of community based programs that wish promote a healthy transition into adulthood. As youth take initiative and make decisions, adults who share the same learning goals should scaffold the process of growth toward maturity (Costello, Toles, Spielberger, and Wynn, 1999).

Conceptual Framework

Youth Engagement in Community Organizations

Among the critical components of the *youth development perspective* is the development of a youth voice, which incorporates the distinct attitudes, knowledge, and actions of young people. The youth voice framework asserts that youth engagement is caused and affected by many factors that community organizations can promote or prohibit (Connell and Kubisch, 2001). The definition of engagement varies from participation to time on-task; however, Reeve (2004) offers a comprehensive definition that we will use when thinking about a community organization setting. "Engagement is characterized by the full range of on-task behavior, [which includes] positive emotions, invested cognition, and personal voice; it functions as the engine for learning and development" (p. 658). Concentrating on the interactions and structures within community organizations that foster engaging educational activities from the youth's perspective, we gathered general facts that promote positive youth development. Our review of the relevant literature suggests that there are two important things staff can do to increase engagement and learning are: (1) to effectively manage groups in ways that ensure youth feel respected by adults and other youth and (2) to positively support young people in the learning process (Grossman, Campbell, and Raley, 2007).

Grossman, Campbell, and Raley (2007) found that when youth rate an activity as well managed, "they enjoy and are more engaged in the activity" (p.6). Effectively managed activities, as defined by youth, include clear and fair expectations, ongoing positive reinforcement, and fairness when reinforcing ground rules. Ultimately, adults should provide just enough structure to help activities run well and remain calm when presented with challenges.

A robust amount of literature emphasizes the critical role of positive adult support to enhancing youth learning and engagement. Adult staff that provide both emotional and instructional support produce higher levels of enjoyment for middle and high school students. By forging trusting relationships, learning about youth culture, allowing for informal socializing, and taking the time to talk with individual youth when special needs arise, adult staff provide emotional support. Effective instructional can occur in a variety of ways in an after school setting. Youth suggests that support include: one-on-one instruction, appropriately challenging activities, and a mix of constructive feedback and positive reinforcement of progress (Grossman, Campbell, and Raley, 2007). Relationships between adults and youth that engender learning are characterized by both emotional and instructional support. Such relationships respect the voices of youth.

After School Programs and Youth Development

The youth development perspective also necessitates attention to all aspects of an adolescent's development: cognitive, social, emotional, and physical. This comprehensive view of developmental needs points to the need for youth to acquire skills in multiple domains during adolescence; academic learning and achievement alone is insufficient. Our review of the literature suggests that after school programs such as the Computer Clubhouse and the Boys and Girls Club have the potential to provide youth with important developmental skills that their schools, families, and assorted other institutions may not be cultivating.

In recent years, many after school programs have defined their effectiveness in terms of academic success, but at least one scholar suggests that this shift in focus is misguided (Halpern, 2006). After school programs are poised to provide experiences that complement a youth's academic development. Halpern (2006) said after school programs are "well suited to providing

the types and qualities of developmental experiences that other institutions...can no longer provide for most low- and moderate-income children” (p.112). In what Pittman, et. al. (2005) call “the developmental imperative”, investment in nonacademic areas of development is central. “[A]cademic success is critical, but it is not enough”, since full preparation for adulthood “requires vocational, physical, emotional, social, and civic development” (p.380). Pittman’s conception of a cube whose axes are times, ages, and outcomes emphasizes that schools, in fact, inhabit very little developmental space. After school programs thus have the potential to support youth development since a majority of youth spends most of their time outside of a school setting.

The importance of school and cognitive development is uncontested, but after school programs can build on other, equally important, aspects of youth development while supporting academic skills. In particular, after school program activities support social and emotional development, “provid[ing] opportunity to learn about the social dimensions of creating and producing” (Halpern, 2006, p. 130). Learning – even if it is not academic learning – plays a central part in successful after school programs. Intentional learning environments are knowledge-centered, with a clear program focus (McLaughlin, 2000). A knowledge-centered environment is one in which standards and expectations help define the knowledge and competencies that students need to acquire. On one hand, exploration and variety are important; however, ideally, after school programs would “aim to deepen skills and competence through intense engagement in a specific area” (McLaughlin, 2000, p.10). Halpern (2006) agrees, stating that after school programs are valuable because they offer youth a variety of activities and opportunities to build skills in specific areas based on their interests. Attending to youth’s

nonacademic interests can often support their interest in developing academic skills (Pittman, et. al. 2005).

Moreover, the disconnect between skills learned in school and skills needed in the twenty-first century workplace exposes a void for after school programs to fill. These twenty-first century skills – creativity, complex problem solving, oral and written communication, and diverse teamwork – are “the ticket to enter the middle class” (Schwarz & Stolow 2006, p.82). Schwarz & Stolow (2006) argue, however, that schools are not teaching these skills due to limits of time, structure, bureaucracy, and priorities. After school programs are poised to build twenty-first century skills because they often involve teamwork, project-based and real world learning, and opportunities for students to develop mastery. Hands-on projects can foster higher-order thinking skills when the activity centers on problem-based learning. Developing mastery of useful skills is central to high-performing after school programs. “When [students] go deep in their after school programs, students recognize that they can apply their learning from one situation to the next, overcome obstacles, and become experts” (p. 90-91). Students who do not succeed in school can thrive in an after school program because students can learn academic content through real-world examples, which are often times excluded from the school environment due to rigid scheduling. Despite the less structured environment of after school programs, they have the potential to build useful skills for youth. The areas of development these programs foster such as teamwork, creativity, and respect for diversity can fill an important developmental gap currently unaddressed by many other institutions.

Technology in after school programs

Technology centers are a relatively new and rapidly growing sector within community based organizations (Kim, 2004), and this section deals specifically with two studies that show

how youth can benefit from technology-based programs. Finally, at the end of this section we briefly explain some evaluation gaps within the specialized sector of community technology centers. Girod, Martineau, and Zhao (2004) investigated the effect of KLICK!, an after school program in Michigan that seems similar to the BGCP Computer Clubhouses. Participation is voluntary, and students can use the technology to make websites, edit digital movies, or surf the Internet. Many different projects and activities occur in the clubhouse simultaneously. The researchers examined how students perceived school before and after participation, and found that participation in KLICK! had a greater impact on perceived school value for students who initially valued school the least. Additionally, their data revealed that participation had a greater impact on computer experience for students with lower grade point averages. This research study illuminates the value of an unstructured yet supportive environment for youth to develop skills and self-confidence. The value of KLICK!, the researchers suggest, is that it offers teens a different space than school in which to succeed and allows students to engage in activities that most interest them. Although the study does not reveal how KLICK! produced these effects, the study emphasizes that after school computer programs can foster more positive attitudes towards school and provide an important alternative environment for youth development, particularly for youth whom schools might struggle to reach.

In a second study of technology-based programs (Davis et.al., 2007), the data reveal that sixty percent of students from impoverished backgrounds have access to computers in only one location: the school. Out of those students that did own a computer in the home, many of them still had technological challenges, such as a lack of Internet access, outdated computers, and missing hardware and software. Overall, youth with low socioeconomic status do not have “digital equity” when compared to youth from middle-class backgrounds (Davies et.al, 2007). In

addition, the Davis study (2007) suggests that the challenge of gaining technological skills expands beyond just access; the learning environment is a crucial aspect that should include space and time for students to work on projects and exchange ideas.

Thus far, evaluations of community technology centers have focused on youth satisfaction and on the centers' degree of success in bridging the 'digital divide'. A new initiative of the U.S Department of Education attempts to assess the educational benefits of programs and, specifically, whether participation results in measurable improvements in academic learning for youth (Kim, 2004).

METHODOLOGY

The research team, consisting of three members, strove to include a representative sampling of all Computer Clubhouse stakeholders in the data collection. An initial information gathering session was conducted with Peter Pheap, Associate Unit Director of the Mervin G. Morris Clubhouse in Redwood City and Alex Yamamoto, Computer Clubhouse Manager of the Moldaw-Zaffaroni Clubhouse in East Palo Alto, in order to obtain general information on the activities and the purpose of the Computer Clubhouse, as well as to discuss particular issues that Computer Clubhouse staff might want to address in a qualitative research project.

Each researcher made individual, informal observations of the two daily Computer Clubhouse sessions on three different occasions: two at the Redwood City site and one at the East Palo Alto site. The first session of the day is a preteen session for youth ages 9-12, and the later session is for teenagers. Observations focused on setting, youth-staff and youth-youth interactions, levels of youth engagement, and activities. On the days that the team visited the Redwood City site, there were 6-8 preteens in the earlier session, and four teens in the later

session, all of whom were Latino and predominantly male. The East Palo Alto Computer Clubhouse had 25 preteens in the earlier session and six teens in the later session when visited; 3-4 of the youth were African-American, but, similarly, most were Latino and predominantly male.

In addition to informal observations, semi-structured interviews were conducted with Peter Pheap, Redwood City Associate Unit Director, Alfonso Oseguera, Redwood City Computer Clubhouse Manager, and Yesenia Peña, East Palo Alto Computer Clubhouse Assistant. They were asked questions relating to the needs of and aspirations for the Computer Clubhouse. Finally, the research team led a focus group with 17 teenagers in Redwood City. The teens' experiences with the Computer Clubhouse ranged from participants that had been with the Computer Clubhouse since inception in 2002 to youth who had never heard of the Computer Clubhouse. They were asked to discuss the Computer Clubhouse activities and how they differed from the rest of the activities in the Boys and Girls Club and their schools.

The research team convened on various occasions to analyze the data and identify salient themes emerging in both sites as well as the major differences between sites. The analysis involved integration of the literature and a critical evaluation of the value that the Computer Clubhouse has for youth. Out of this analysis came four major findings that will be discussed in the data and results section of this report.

Our data collection had some limitations. Importantly, since our observations of the Computer Clubhouse only spanned three days, broad generalizations could not be made. More research would be necessary to further explore our initial findings. Since we only conducted a teen focus group in Redwood City, our research does not include the preteen perspective, nor the East Palo Alto youth perspective, which may have differed from that of Redwood City. Finally,

within this focus group, there was confusion as to what the Computer Clubhouse was, where it was located, and how it was different from another computer lab located within the Boys and Girls Clubhouse building. Initially, we believe that some of the students answered questions based on the Success Maker computer lab and not the Computer Clubhouse. This confusion between the two computer rooms within the Boys and Girls Clubhouse may have affected our data initially; however, we carefully analyzed the focus group responses and dismissed answers that seemed misplaced.

DATA / RESULTS

In the Redwood City preteen observations, youth sat around a table watching the leader navigate a computer screen projected onto a larger television screen. The leader mostly spoke in English but occasionally used Spanish to address certain youth. The environment seemed calm and comfortable, and the youth talked colloquially and asked questions easily. In the teen session, a volunteer came to engage in a serious discussion; the youth seemed very comfortable sharing their concerns and questions about life. During the East Palo Alto Computer Clubhouse visit, there were 25 preteens present in the earlier session and 6 teenagers present in the later session. In the preteen session, youth were engaged in independent activities such as Internet surfing, playing violent games, and working on Photoshop projects. The teen session echoed the atmosphere of the earlier session, as students were casually surfing the Internet, watching television, and talking. Following are four major findings that we identified in our research.

1. Youth value relationships with staff

One of the most valuable aspects of the Computer Clubhouse for the youth is their relationships with staff members. Specifically, they value that the staff can relate to them, get to know them on a personal level, and respect them as people. This supports one of their developmental needs to establish close relationships with adults (Pittman and Wright, 1991). For example, one youth stated that “[the staff] really get to know you as a person. They’re very personal, so you feel comfortable with them.” They pointed out that the staff joked around with them and that “you [the youth] feel like they’re your friends [the staff].” When youth entered the Computer Clubhouse, staff greeted them in a friendly manner by patting them on the head and in return some youth wanted to discuss personal issues with staff, such as problems with counselors at school. These familial relationships make for a very comfortable atmosphere in which youth can open up and build trusting, caring relationships with adults. At the East Palo Alto site, for example, a high school teen alumna of the Computer Clubhouse dropped in for a visit and was sharing her recent academic successes with the director. Staff seemed to have an impact on youth that lasts beyond their time at the Computer Clubhouse.

Youth valued mentorship and opportunities for the acquisition of life skills beyond computer usage. Youth mentioned, for example, that they learned about responsibility and keeping up with what they had to do from staff. Further observations revealed that staff encouraged dialogue around opportunities for the future, as in a Redwood City session where a guest mentor told students, “You have to finish high school. That is an absolute must.” One of the most common themes identified as salient to youth was staff’s specialized knowledge of their interests. Youth explained that staff members use this knowledge to tailor opportunities to those

interests - for example, helping them find jobs and other academic and extra-curricular opportunities of which they can take advantage.

2. Youth value useful skill development

The activities in the Computer Clubhouse increased the computer skills of youth. When asked about their favorite things to do in the Computer Clubhouse, teenagers described a number of programs they had learned to use. One staff member commented that when youth start at the Computer Clubhouse, “a lot of them do not even know what Microsoft Office is about.” Yet the youth we observed displayed basic computer knowledge and skills, maneuvering computers with ease and using shortcuts such as “ctrl + c” to copy. Staff members used computer terms in their sessions (such as “uploading,” “layers,” “transitions,” and “marching ants”) and made sure the members knew what these terms meant. The Computer Clubhouse also taught youth high-end technological skills such as video and graphics editing; one staff member noted that touring the DreamWorks graphic department and seeing the employees using the same computer tools was “a pretty powerful experience” for the youth.

More than the simple acquisitions of skills youth value the practicality of these skills. Many youth use their computer skills outside the Clubhouse; some older members do freelance work, but even youth who do not take it to that level find their skills helpful outside the Clubhouse. One teenager remarked, “We use Photoshop all the time for stuff like flyers or web design. For advertisements of whatever you’re sponsoring or running your own businesses, you can build a website using Photoshop or design your own flyers.” Youth noted that skills they acquired in the Computer Clubhouse directly transferred to school, such as creating PowerPoint presentations for school projects. One teenager said he learned more about how to use this program at the Computer Clubhouse than at school.

Moreover, youth looked ahead to the future and emphasized the value of these skills for potential jobs and opportunities. They linked these opportunities explicitly to programs and skills; for example, one teenager said, “Adobe Video Premier [you can use] to be a director – you can use it for many things that have to do with videos. The studio of course you can use to make beats. You can use it to become a singer, rapper, or whatever you want to be.” Skills learned in the Computer Clubhouse also helped youth in planning their educational futures. “It can help you to see if you want to study one form [of technology] in college and things like that, like if you want to study graphic design or something,” another teenager said. Even youth who are not seeking careers in technology understand the value of computer skills for their future success. As one said, “Nowadays everything is done with computers. Most businesses use computers. Most jobs use computers. If you don’t know how to use computers, you won’t get very far.” Youth at the Computer Clubhouse recognize the usefulness of their skills beyond the walls of the Boys and Girls Club. They value the opportunity to learn skills they can directly apply to endeavors both present and future.

3. Youth value input and choices

Youth value making decisions and having a hand in shaping activities. One of the first decisions youth make is to participate in the Computer Clubhouse as opposed to other Boys and Girls Club activities. Based on our teen focus group in Redwood City and our Computer Clubhouse workshop observations of three distinct days, we heard and observed that youth value a diverse set of options from which they can select their preferred choice. From a query of what teenagers’ value most at the Computer Clubhouse; we learned about some of their favorite activities, such as: Photoshop, Adobe Premier (a video editing program), PowerPoint, the recording studio and the music room. Out of the 17 teens who attended the focus group in

Redwood City, four male teens regularly attended the Computer Clubhouse workshops and had been members at the Boys and Girls Club for many years. Additionally, three male teens also regularly attended the Computer Clubhouse, but instead of the workshops they were more interested in the recording room and the DJ equipment. A male teenager from the focus group explained the difference between the Computer Clubhouse activities and other programs at the Boys and Girls Club, “The gym is athletic and the Computer Clubhouse is creative. A difference is the age that they target.” Through his comment we understand that some older youth value the separation of age and the creative elements or choices offered in the Computer Clubhouse.

All of the Computer Clubhouse workshops we observed extended choices for youth, yet the choices differed between the two locations of Redwood City and East Palo Alto. Since East Palo Alto sustains a largely unstructured environment, youth options varied from watching the movie Iron Man, working on Photoshop, playing a video game, or tinkering with disassembled computer parts on a table. Maintaining the theme of choices, yet changing to a structured environment, Redwood City presented youth choices during the Computer Clubhouse workshops, yet the type of choices differed. In Redwood City, the leader did an excellent job asking open-ended questions and soliciting youth input. For example, youth chose the font type, the background color, the style of transition, the music selection, and the credit wording for a slideshow. However, in East Palo Alto, it appeared that instructors modeled the work and set limitations on what the youth could create. In conclusion, based on observations, youth value the opportunity to make decisions and shape their activity during the Computer Clubhouse workshops.

4. Youth value the opportunity to broaden their horizons

Staff members in Redwood City used Computer Clubhouse time and resources to discuss life outside the Boys and Girls Club, including other areas of the world and the value of education. (There were no specific activities relating to broadening horizons in East Palo Alto on the day that we observed.) Youth seem to appreciate this opportunity to expand their horizons, which we define not based on skills learned, but rather on a knowledge and understanding of the world beyond the community of Redwood City.

One of the Redwood City preteen sessions we observed emphasized broadening horizons. The leader took the youth on a tour of the Computer Clubhouse Intranet, showing them a map of the Computer Clubhouses around the state and around the world. He tells the group that youth from around the world use the Intranet site, and that they might receive messages in different languages. He also recalls his experience at a Computer Clubhouse conference, where conference attendees from other countries taught him a few words in different languages. The youth seem to value hearing these experiences, asking genuine questions about the other Computer Clubhouses (“Have you been to the new one in Salinas”) and the conference (“Do all staff get to go?”). The leader debunked stereotypes about technology in other countries and brought the youth’s attention to Computer Clubhouse users on the other side of the world who might be sleeping at that very moment. “It’s a big world,” he said. Youth seemed to respond favorably to these comments, calling the Intranet connection to international Computer Clubhouse users “cool” and indicating their curiosity about life outside of the Boys and Girls Club.

During the teen block session we observed in Redwood City, a volunteer who works in film production conversed with the teens on topics such as school and technological jobs.

Although this session did not cover any computer skills, the teenagers seemed to appreciate the motivational advice and reassurances that those in the room “are choosing to invest in [themselves]. Other people are lazy. The fact that you guys come here [Computer Clubhouse] sets you apart from the masses.” Teens asked genuine questions and most participated openly. The volunteer advised the teenagers to “go against the grain, be smarter like Warren Buffet, play by the rules, and above all get a good education.” The teenagers in this session seemed to value the volunteer’s efforts to get them to think more broadly about their future goals and plans.

Additionally, regular attendees value the opportunities the Computer Clubhouse gives them to travel around the country. About three to five teenagers each year take trips to technology competitions or summits in the Bay Area and elsewhere (such as Boston and Baltimore). These trips give youth not only the opportunity to showcase their work, but broaden their horizons as well. Because the youth stay on a college campus, one staff member noted, “They get to see what it’s like to be in college – a little taste of reality, whether they go to college or not.” Youth agreed that involvement with the Computer Clubhouse could show them a world beyond their immediate horizons. “The Computer Clubhouse can take you places,” one teenager remarked. “Some club members have performed live at AT&T Park with live music. They got people to Sundance Festival.” Youth also really valued meeting and interacting with students from all over the world, such as New Zealand and India - an experience they would not likely have in Redwood City or East Palo Alto. Overall, youth value the Computer Clubhouse for the opportunities it gives them to broaden their horizons through both conversations and travel.

RECOMMENDATIONS

There was evidence at the Computer Clubhouse of youth learning and employing basic computer skills. The skill level, however, can increase by building on some of the strengths of the Computer Clubhouse. The research team identified six opportunities for growth, all of which involve resources already available within the Boys and Girls Clubhouse.

1. Increase awareness

First, we see opportunities for increased awareness of the Computer Clubhouse within the Boys and Girls Club. There is no formal recruitment or outreach process at the Computer Clubhouse. Generally, youth are drawn in with little effort; since the Computer Clubhouse is for preteens and teens, younger children look forward to the day they turn nine and can participate in Computer Clubhouse activities. Teenagers are drawn into the Computer Clubhouse through word of mouth, and staff counts on current participants to bring in friends.

The Computer Clubhouse is a valuable resource that has the potential to impact many youth meaningfully, but relying on word of mouth may not maximize this potential. In our observations, we thought the program could accommodate more youth. Although we praise planned efforts to recruit new members at local charter schools, we also think that increasing awareness within the Boys and Girls Clubs themselves might make great strides in drawing new youth into the Computer Clubhouse. Almost half of the teens in our focus group misunderstood the location and purpose of the Computer Clubhouse – confusing it for the SuccessMaker computer program – or had never been. Additionally, some youth may think that the Computer Clubhouse is not for them because they do not know anything about computers. One focus group participant said he had never been because “I don’t think that anyone in the Computer Clubhouse

can teach me.” Thus, we see greater opportunities for “getting the word out” in the Boys and Girls Club about the Computer Clubhouse, its programs, and how youth can benefit from them.

First, we suggest ensuring that the tour for youth new to the Boys and Girls Club includes the Computer Clubhouse. One of our focus group participants heard about the Computer Clubhouse through the tour, and making this a part of regular practice will inform all youth about Computer Clubhouse activities. Other opportunities that would be relatively simple to implement include putting up signs around the Boys and Girls Club to advertise the Computer Clubhouse, or having a “Bring a Friend” day at the Computer Clubhouse, using incentives to encourage youth to bring their friends along. The Harvard Family Research Project (2004) suggests that programs should encourage friends to join together and offer them a variety of different activities. If the Computer Clubhouse is interested in more extensive outreach, staff might consider using youth as recruiters, encouraging them to reach out to a wider audience outside of their networks. The teenagers who frequently attended the Computer Clubhouse spoke eloquently about the program in our focus group, and we think they would do an excellent job conveying the essence of the Computer Clubhouse to their peers. The Boys and Girls Club has a number of options for increasing awareness about the Computer Clubhouse, and we hope staff members use a variety of outreach approaches, so that more youth can benefit from the Computer Clubhouse program.

2. Showcase members’ work

To increase awareness about the Computer Clubhouse as well as encourage member interest and commitment, we think the Computer Clubhouse might consider pursuing opportunities to showcase members’ work in the broader community. About three to five members participate in technology-based competitions and conferences each year. One staff member called contests “a wonderful opportunity for the youth to stand out, because they get the

opportunity to show off their skills and, as a result, strengthen their self-confidence.” We realize that there may not be resources to give every youth these opportunities, but see other ways in which youth can showcase some of their creations. Both Computer Clubhouses already display some of the members' work on the walls of the Computer Clubhouse, but we think it might also be worthwhile to consider exhibiting work to the broader community outside of the Boys and Girls Club.

Computer Clubhouse staff members will be able to conceive of the most feasible ways to display members' work, but we have a few suggestions to get them started. First, the contest idea could be applied at a more local level; directors could create monthly contests between youth at the East Palo Alto and Redwood City Computer Clubhouses. The Boys and Girls Club could also host a parent night at the end of each semester in which parents of Computer Clubhouse members would have an opportunity to view their children's work. Student-created videos and slideshows could be played for an audience, with Photoshop-edited images displayed around the room.

The Boys and Girls Club might also consider developing community partnerships to display members' creative work. For example, perhaps the school or another public building might donate some wall space to showcase members' Photoshop images. Images around a theme (such as “my community”) or a group of images that originated from the same photograph but were edited differently by each member could form a meaningful art exhibit. Additionally, community groups or organizations could “hire” Computer Clubhouse members to design and create products that could actually be used. For example, BGCP could use Computer Clubhouse members to produce flyers or promotional videos. These opportunities, in our view, would strengthen the program by encouraging and inspiring deeper youth engagement. In addition to

giving members the opportunity to showcase their skills and creations, putting their work out in the community would help to increase awareness about the Computer Clubhouse.

3. Strengthen coordination between programs

Based on our staff interviews, we understand that the Computer Clubhouse mission, within the broader Boys and Girls Clubhouse of the Peninsula, is evolving. As with any change, particularly when the change involves an organization's mission, staff communication about the evolving changes is paramount to successful implementation. MacCallum (2000) identifies four attitudes of high employee performance and one of those identified attitudes occurs when "employees have made a direct connection between their work and the organization's mission" (Dissertation abstract). Additionally, a recent staff change within the East Palo Alto Computer Clubhouse represents a perfect opportunity for the principal staff members of the Computer Clubhouses to meet and align program goals. This coordination meeting could lay the framework for a Computer Clubhouse strategic plan that might include the opportunities we describe in our report and, perhaps more importantly, include what youth currently value about the Computer Clubhouse. A second benefit of a coordination meeting is that they would provide time for the directors to brainstorm and plan activities that align with the objectives. For example, broadening youths' horizons appears to be a concept that youth value at the Computer Clubhouse; therefore, it might become part of the strategic plan with specific activities defined for leaders to implement.

4. Leverage directors' expertise

At the East Palo Alto site, a handful of students were engaged in computer projects, but there was no apparent structure or progression in terms of how far along youth should be on designated projects. Additionally, although observations at the Redwood City site came after

several weeks of instruction, the sessions were still leader-directed and did not include student time on a computer. More hands-on learning activities would encourage increased youth engagement, as activities in which youth are active participants tend to yield better results in terms of learning outcomes (Reeve, 2006)

One of the Computer Clubhouse's strengths is the technological expertise of the directors and associated staff. In order for the program to have more value and utility for the youth, we encourage the Computer Clubhouse to take advantage of the staff's extensive knowledge by allowing youth to learn from them from day one. For example, during a video editing workshop that spans several months, youth might begin using the program during the first week and continue throughout the semester. Youth who do not attend the Computer Clubhouse as often will inevitably be limited in their progress, while consistent participants will be able to access the director's expert knowledge of computers and learn advanced skills within the video editing program. With the extensive expertise present at the Computer Clubhouse, we have great confidence that the staff will be able to guide youth to the next level, mixing modeling with guided practice in order to do so. Giving youth the opportunity to learn advanced skills as they progress may play a crucial role in keeping them involved in the Computer Clubhouse (Reeve, 2006).

5. Establish and communicate objectives

Providing an intentional learning environment with clear, consistent structures and goals is key to achieving student academic improvement (Perry, Teague, & Frey, 2002). If the goal of the Computer Clubhouse is evolving toward helping members graduate and focus on post secondary education, the Computer Clubhouse might want to consider further development of learning goals for workshop lessons. We believe that the Computer Clubhouse has moved in the

right direction this year with the implementation of workshops; however, the research shows that well-designed tasks facilitate deeper levels of learning and engagement. We are not necessarily recommending that the Computer Clubhouse programs become more structured per se, nor that they adopt a classroom-instruction format. Rather, we are suggesting that the workshops become more intentional and purposeful in their objectives.

One might ask what the Computer Clubhouse should look like, since its mission is to provide a creative and safe learning environment where young people work with adult mentors to explore their own ideas, develop skills, and build confidence through the use of technology. We recommend that the Computer Clubhouse establish learning objectives that combine a focus on knowledge or skills gained and exploration. Marzano (2007) explains that “a learning goal is a statement of what students will know or be able to do”. For example, the directors at each Computer Clubhouse can create a list of computer skills and terminology that are important for members to learn. Staff might give members a list or chart of the computer skills and terminology so they can monitor their personal understanding and track their progress in the Computer Clubhouse. In addition, when the focus includes youth exploration, one of the director’s primary roles is to help members construct tasks that allow them to explore an area of personal interest.

In addition, having a clear vision for each activity might also help with the inconsistency in attendance, which staff identified as a problem. Youth may be more likely to come the following day if they have a concrete understanding of what they will learn. After establishing specific objectives that include skills and exploration, an important aspect is to communicate those objectives to the youth who regularly attend the Computer Clubhouse sessions and to the youth within the entire Boys and Girls Clubhouse. One teen's comment that he didn't think

anyone could teach him at the Computer Clubhouse might be addressed if leaders emphasized clear workshop objectives. Simple statements such as "Even complete beginners will be able to create their own websites in this four month workshop" might help in increasing awareness and correcting misunderstandings.

6. Restructure workshops and room

We envision a few ways to restructure the Computer Clubhouse workshops to facilitate three main instructional strategies: modeling, guided practice, and independent exploration. After a few minutes of discussion at the opening of the workshop, the leader can model certain skills on the large screen while the youth follow along on their own computers. The second half of the workshop might be devoted to individual youth exploration with the computer program. The leader can walk around the room to answer questions that youth have and help them achieve certain objectives in their projects. For example, while creating slideshows, some members might want to focus on adding music to their slideshow, while others might be more interested in transitions. Rogoff developed the notion of *guided participation*, which suggests that both guidance and participation are essential to a child's development of cognitive skills (as cited in Kim, 2004, p. 36). According to Rogoff, learning occurs when an activity has opportunities for observation (i.e. instructor modeling) and engagement (i.e. hands-on work). A second reason we stress a hands-on learning environment is reflected in the words of Schwarz and Stolow (2006) who state, "[in] most schools that serve low-income students, hands-on projects are the rare exceptions and far outside the core strategy for teaching and learning" (p. 82). We believe that the Computer Clubhouse can find a balance between instructor modeling and guided practice that will promote the evolving goals of the Boys and Girls Clubhouse of the Peninsula.

Physically rearranging the Computer Clubhouse room might support this workshop structure. (See Fig. 1).

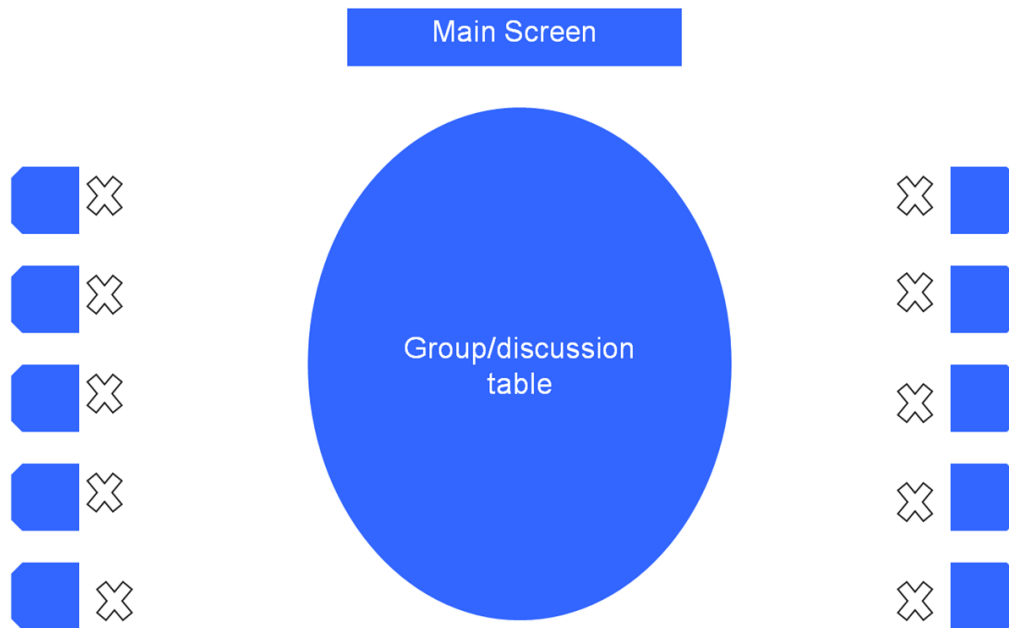


Fig. 1: A Proposal for Redesigning the Computer Clubhouse Room

In Redwood City, we observed the value of designating a table in the center of the room where youth and the leader can hold group discussions. In our proposal, we recommend arranging the computers from small clusters into rows against the wall; swivel chairs enable the youth to easily move from discussion to individualized computer work. This arrangement of the room will allow all youth to follow along on their own computers while the leader models on the big screen. During exploratory time, the leader can walk behind the computers to monitor each member's progress and deliver personal attention.

CONCLUSION

Taking our findings and recommendations into consideration, we hope that the BGCP Computer Clubhouses will think about the following "next steps" in the near future. A first

priority should be to increase awareness of the Computer Clubhouse within the BGCP, which can be done through the suggestions that we provided above. In addition, it is important that key staff members at both Computer Clubhouses are engaged in strategic planning regarding the Computer Clubhouse's structure, objectives, and goals. This would also involve identifying and planning that directly contribute to these objectives. If the design of this strategic plan prioritizes what youth value, as discussed previously in our findings, we believe that the Computer Clubhouse can be even more useful and valuable to youth. Such a strategic plan could incorporate our findings about what youth value, as well as the opportunities for growth we identified. In this way, the BGCP can accomplish its mission through technology education.

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Appendix

1. Staff Interview Protocol

- What is your role as the leader of the Computer Clubhouse? Tell me a little about your career background.
- What are your goals for the youth who attend the Computer Clubhouse? How do you try to meet those goals?
- Do you recruit youth? How do youth usually find their way here? Do you advertise the program through school?
- Can you describe your ideal Computer Clubhouse? How many kids would be involved? What would their involvement look like? What would the mood or feel of the room be like?
- Describe the average youth who attends the Computer Clubhouse. Do you track attendance for each block? If not, what is your estimate of how many children attend per block? How long do they usually spend here?
- What sorts of skills do they learn? What kinds of activities do they participate in? How do you think these skills and activities are valuable for the youth?
- What other benefits do you think the Computer Clubhouse provides for them? (e.g., social, self-esteem, relationships with staff, etc.)
- For students who are frequent visitors, have you noticed any changes from the beginning of their time here?
- Describe some of the efforts and accomplishments of the youth who participate in the Computer Clubhouse.

2. Teen Focus Group Protocol

- Name, age, and how long have you been attending the Boys and Girls Club?
- In a week, how many times do you come to the Computer Clubhouse?
- How did you hear about the Computer Clubhouse?
- Why do you like coming to the Computer Clubhouse?
- What do you think of the staff at the Computer Clubhouse?
- What is your favorite thing to do at the Computer Clubhouse? Why?
- What kinds of things have you learned at the Computer Clubhouse?
- How does the Computer Clubhouse compare to the other block activities at the Boys and Girls Club?
- Would you recommend the Computer Clubhouse to your friends? What would you tell them?