

Final Report

ACCESS TECHNOLOGES GROUP, INC. SOCIAL SIMENTOR™

Results of a National Center for Technology Innovation Award to continue research and development of interactive software to teach social skills through role play in collaboration with Hawthorne Cedar Knolls Union Free School District show promising preliminary “hire-ability” scores for students using the software

Introduction

Access Technologies Group, Inc was awarded a National Center for Technology Innovation Grant to support the continued development of an interactive simulation e-learning tool entitled “Social Simentor™”. Social Simentor™ is patterned after the successful business training simulation tool, Simentor®. Social Simentor™ e-learning software is aimed at students and adults with cognitive disabilities that interfere with their ability to accurately read, correctly interpret and appropriately respond to social cues and conventions. The grant funding was made possible through the [National Center for Technology Innovation](#), which said, “These awards represent innovative technologies applied in innovative ways with strong collaborative research designs to determine the impact of the technology for students with special needs.”

The grant award of \$15,000 was matched with funds and in-kind contributions from the researchers, the HCKS School District and Access Technologies Group, Inc. NCTI is an organization tasked with identifying and fostering technology innovation in tools and applications for individuals with disabilities. The National Center for Technology Innovation (NCTI) is funded by the U.S. Office of Special Education Programs (OSEP) in order to “broaden and enrich the field by providing resources and promoting partnerships for the development of tools and applications by developers, manufacturers, producers, publishers and researchers.”

The Social Simentor Research Team

The following researchers collaborated in field-testing the transference of this social role-play software product “**Social Simentor**”:

- **Lucy Baney, President and CEO of Access Technologies Group**, the developer of Simentor® led the project as the vendor creating “**Social Simentor**”

- **Leslie Walker-Hirsch, M.Ed., FAAIDD, Co-creator of the Circles Curriculum Series** and internationally known expert on Social Development and Sexuality in individuals with intellectual and developmental disabilities designed the scenarios based on her experience with social skills issues in the worksite. She wrote the “scripts” to be used and co-lead the research team. She also developed the interview protocol sheet for use by industry HR professionals.
- **Christine M. Casey, Ed.D. Educational Consultant**, co-researcher, conducted the evaluation of the product, secured the SHRM participants, trained the participants, assisted in developing the scenario content and script, and monitored the compliance with the IRB requirements, working collaboratively with Leslie Walker-Hirsch.

Research question:

Can digital role-play software, “Social Simentor™”, reinforce effective social behavior, provide constructive feedback on incorrect or inappropriate behavior to such a degree that these new skills are internalized and can be applied in a real live social setting?

Research and development commenced upon notice of award. The research was conducted at the Hawthorne Cedar Knolls Union Free School District located at 226 Linda Ave, Hawthorne, NY 10532. This district offers several programs serving students with special needs and has partnered with the researchers during previous studies. There were thirty subjects aged 17-21 years selected and assigned to one of two treatment groups. Despite attempts to randomize, practical considerations made the groups “classroom groups” that used the software during their class times. By implementing in this manner, the groupings tended to be “matched” within groupings. Although the four classes seemed similar, they in fact were not. Analysis of their special education Individualized Education Plan (IEP) documents showed cognitive and academic differences. The students in the “treatment group” were lower intellectual functioning and lower reading levels and academic ability.

The researchers developed this module that would present ordinary social interactions that are likely to occur during the course of an ordinary work day in an office. They began by creating new scenarios in several important areas. They improved the interview scene that was in the original pilot. In addition to this improved interview, several situations were added. These included opportunities to role play asking for help, a performance review, fitting in at the break room, avoiding a sexual advance, etc. in an array of office locales. After scripting, photo shoots were arranged and the soundtrack was professionally recorded. The ATG programming and graphics team produced the scenarios. These were then made available to the HCKS site on their network, following some technical network and internet access difficulties that delayed the

implementation until October 1, 2007. This delay caused the students to have less time with the software than originally planned.

The first group received two and ½ weeks of training with “*Social Simentor™*”. The actual hours average at 6 hours of interaction. The second group, the control group, did NOT receive this training. A “career fair” event was planned for October 25, 2007. Human Resource professionals from the local chapter of the Society of Human Resource Managers were recruited to volunteer to hold mock interviews. Interviewers were trained prior to the interviews. They were provided with a list of sample questions and a scoring sheet to rate the student’s response to the interview questions. (See attached form.) It was hypothesized that the students who experienced a simulation of a job interview and other scenarios on the computer would rate higher than those students who did not have this training.

Upon completion of interaction with Social Simentor, each student was expected to have learned:

- To read non-verbal social cues such as body language and facial expressions
- To produce practiced responses that are appropriate to the social cues at the interview
- To demonstrate the transfer of training from the virtual office environment of the Social Simentor scenarios to the mock career fair interview
- To become more “hire-able” by internalizing and accessing a set of strategies via the scripts that would inoculate against inappropriate verbal responses

Research Activities (management plan and timeline)

Activity	Timeline	Person responsible
Award announcement	Early May , 2007	Lucy Baney
Notify HCKS Administration of award	May 2007	Chris Casey
Convene IRB and obtain approval of project	May –June , 2007	Lucy Baney
<i>Social Simentor™</i> Reconfigured to add additional scenes and functionality to the initial prototype of the job interview	May – August 2007	Leslie, Chris, Lucy
Make arrangements at HCKS for permissions to be signed by parents/students	September 2007	Chris Casey
Assign students randomly to two treatment groups	September 2007	Chris & Leslie

Students in group A to use <i>Social Simentor™</i>	October 2007	Chris
Business leaders to be invited to career fair	October 2007	Chris
Students in both groups to be notified of career fair	October 2007	Chris
Develop rating sheet and sample questions for use in career fair	October 2007	Chris & Leslie
Brief training of business leaders prior to career fair in their role and use of the rating sheets	October 2007	Chris
Make arrangements to attend NCTI annual conference	October 2007	Lucy
Conduct Career fair, randomly assigning students to their interviewer	October 25 2007	Chris & Leslie
Collect rating sheets, debrief with business leaders	October & November 2007	Chris & Leslie
Analyze the ratings to determine if Group A students (treatment with Social Simentor) scored better than the Group B (control group) that had no treatment	November 2007	Chris & Leslie
Write preliminary findings	November 2007	Chris
Provide feedback to ATG technical team for future redesign	November 2007	Lucy
Present preliminary findings at conference	November 14-16, 2007	Lucy, Leslie, Chris
Write final report	November 2007	Lucy, Leslie, Chris
Incorporate findings (if positive) into business plan	January 2008	Lucy Baney

Career Fair

Treatment students spent approximately two and ½ weeks working with the Social Simentor simulations prior to the Career Fair. The original proposal had anticipated a longer usage period. The development of the scenarios took longer than anticipated. The interviewers were recruited from the local SHRM chapter. They arrived blind as to who had treatment and who was a control group student.

These are the instructions provided to the interviewers:

“This is a selection of questions and a rating scale for you to use to evaluate each student interviewee as a possible employee at your office. Please read the question or paraphrase it if you like and record the student’s response if possible. Then rate the response from 0 (poor) to 5 (excellent) by circling the number on this sheet. After this interviewee has left your desk, decide the hire-ability of this candidate by circling 0 (poor) to 5 (excellent) and add a comment to help guide us in improving the Social Simentor Training Scenarios.

Thank you for participating in this important event!"

Questions:

STUDENT JOB CANDIDATE

COMMUNITY INTERVIEWER

1. Hello. I am (YOUR NAME). I am the person who is interviewing you for the job. Are you here for the job interview?

0 1 2 3 4 5

2. At my office we like to work as a team to get things done. What does it mean to work as part of a team in an office?

0 1 2 3 4 5

3. We all try to do good jobs here, but everyone makes mistakes sometimes. What would you do if your co-worker yells you because you have made a mistake or criticizes your performance in a very nasty, mean way?

0 1 2 3 4 5

4. Everyone works as part of a team. What would you do if a team member asks you to break the rule about leaving the building to do him or her a favor?

0 1 2 3 4 5

5. There is a lot to learn here at the office and it can be confusing sometimes. What would you do if you get confused and aren't sure if understand the job you are supposed to do?

0 1 2 3 4 5

OVERALL HIRE-ABILITY RATING:

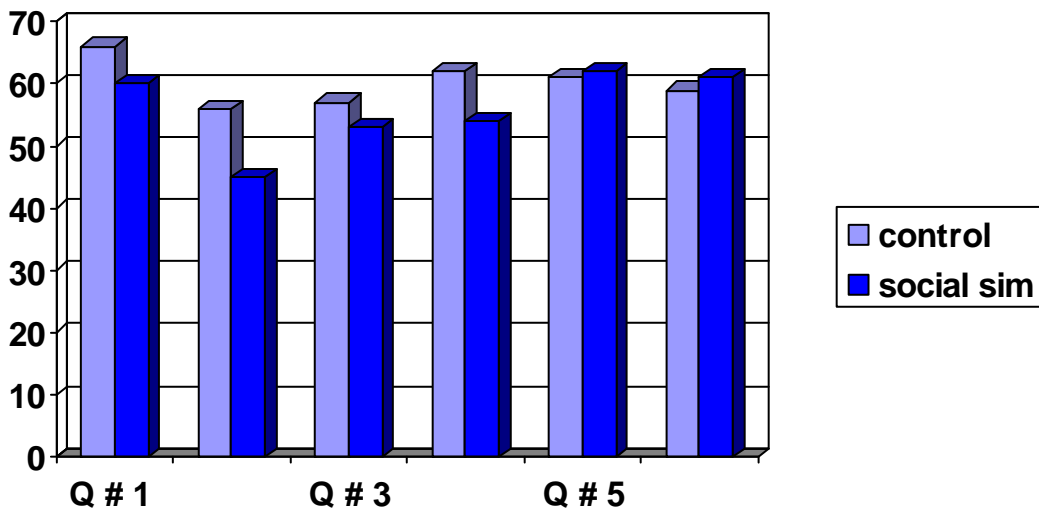
0 1 2 3 4 5

I (would/would not) want to hire this person for a job in my office because

Data was analyzed for the treatment group and the control group to determine if score ratings from the interviews were higher for the group that practiced in the e-learning role play scenarios.

**Responses to Interview Questions
Control Group vs. Treatment
Tabulated scores**

	Q # 1	Q # 2	Q # 3	Q # 4	Q # 5	hire-ability
control	66	56	57	62	61	59
Social Sim	60	45	53	54	62	61

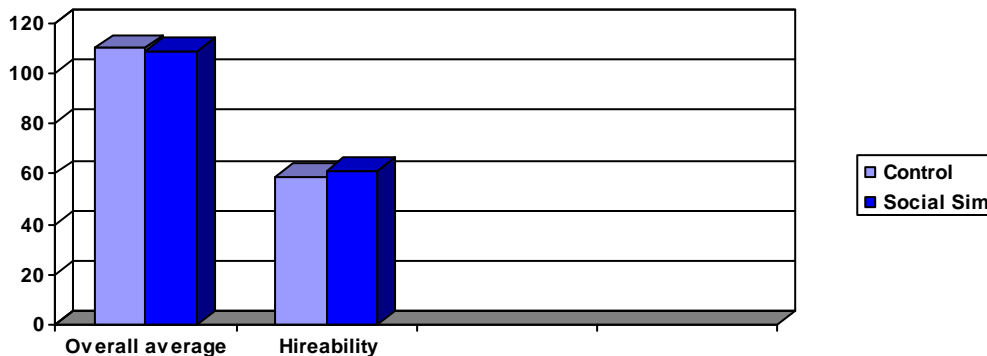


Although with these small groups it is not possible to have a statistically significant comfort level with the results, it is interesting to note that the cognitively lower group that had the Social Simentor treatment did score at par and sometimes even better than the higher functioning non-treatment group. On question # 5 the treatment group scored 62 while the control group scored 61. This question tapped the knowledge of what to say or do if they “don’t know what to do”. This is a sophisticated social concept. The opportunity to learn practice and apply skills during Social Simentor training is a likely factor to account for this success since the training prepared them to answer this question effectively.

Comparison of Average Answer Score and Overall “Hire-ability” Score

Control vs. Treatment Groups

	Overall average	Hire-ability
Control	110	59
Social Sim	109	61



The need to present at the November NCTI conference necessitated the career fair to be scheduled on October 25, 2007. This chart indicates that although the control group was cognitively more intact, the treatment group was competitive in their results. They were also seen as having slightly more “hire-ability”.

It is critical to note that people get fired for social issues more frequently than for their task proficiency skills and job performance. This program provides the “scripts” and practice for the job social skills that will help people get hired and keep the job. The practiced skills generalize and transfer from virtual practice on the computer in a classroom to a realistic live environment.

Results:

Study results did not produce a dramatic difference between groups. However, students in the control group were not actually matched to the treatment group in cognitive ability. The treatment group was drawn from the life skills classes and the control group represented a different population interacting in a leadership experience. They were an available and willing control group. Even with this uneven matching, the results showed that the treatment group remained competitive with intellectually and academically more competent students.

- The treatment group performed competitively against a higher functioning control group after only 2 ½ weeks of Social Simentor training. This was a significant accomplishment.
- Perhaps with more Social Simentor time on task, and an interview after 1½ months of treatment, they may surpass the control group.

Although this study is now completed, the Social Simentor Simulations are still utilized by classes at HCKS. Following an extended usage period beyond the scope of this project, the students will interview at a future career fair in order to help determine the length of time needed in software usage for the desired results.

- Treatment students continue to use Social Simentor for two more months. Another similar group that was never interviewed is also using it for 1½ months.
- By January, we should have new insights about the first group and try the interviews again with another treatment group. These can then be compared to the control group to see if more time on task makes a difference.
- We will check interview scores against Social Simentor scores logged by Industry Train Data Base.
- The team believes that a “Tool Kit” with additional modalities would also serve to augment the learning process and create a multidimensional approach to social learning.

Summary:

Social Simentor™ provides a unique e-learning experience offering interactive scenarios and feedback on key social conventions, including verbal responses and reacting to body language and facial expressions, in a penalty-free, non-judgmental environment. During the research HCKS High school students used Social Simentor™ simulations to practice interviewing skills and then participated in a career fair interview with local business leaders who rated the students on their social and interviewing skills and consequently their “hire-ability”.

According to Leslie Walker-Hirsch, for many individuals with disabilities, “reading” social cues may be as difficult as reading words. Individuals with disabilities often have difficulty in obtaining and retaining jobs because of their difficulties with non-verbal communication, poor social judgment and misinterpretation of social messages. The unique nature of the Social Simentor role play product allows for customization of vignettes to role-play and replay. The use of technology allows for the repetition sometimes necessary for skill acquisition while making the experience embarrassment proof and enjoyable.

Research shows that students retain 5% of lectures, 10% of what they read, and only 20% from audio-visual lectures. But when “practice by doing” was combined with “immediate use” and added to other learning components, the retention rates increased 75-80% (www.ntl.org) This unique role play e-learning product offers the opportunity for immediate application and feedback. The research from this grant offers preliminary results that suggest that providing meaningful and compelling repetitive practice increased the rates of retention of appropriate social responses among 17 to 21 year olds with cognitive disabilities in the social skills areas they are likely to require in a work environment. This caused the lower functioning treatment group to be competitive in hire-ability measures, despite lower academic achievement and cognitive ability. Although this study used a very small sample and the results are not statistically significant and cannot be generalized, the research is certainly promising.

About Hawthorne Cedar Knolls Union Free School District

Hawthorne Cedar Knolls Union Free School District is a Public Special Act School District located on the grounds of the Jewish Board for Family and Children’s Services. The Hawthorne Cedar Knolls Union Free School District provides the educational component for residential and day students with social, emotional, psychological and academic disabilities. Day students are classified and referred by their local Committees on Special Education. HCKSUFSD has a strong commitment to programming for the academic, social and emotional needs of children in a technology rich environment. It is the only school district in New York State with a Smartboard in every classroom and conference room.

About Access Technologies, Inc.

Access Technologies Group (ATG) is a provider of e-learning tools, and solutions as well as patented simulation authoring software. Founded in 1994, ATG has a ten-year history of working with Fortune 1000 clients to structure, develop, execute, and manage custom Internet-based training solutions targeted at increasing the productivity of their clients’ human capital. ATG’s current business consists of a mix of simulation development, e-learning consulting, and custom development of web-based courseware and other Internet-based applications.

One of the featured products of the Access Technologies Group, Inc. is Simentor[®], a patented simulation-based authoring platform that currently is used with adult employees to perfect their interpersonal skills by simulating corporate interactions. It provides the ability to create limitless role-playing scenarios for learners, targeted to specific business needs. It has been used to practice leadership skills, sales training and avoidance of sexual harassment behaviors. The unique value of the Simentor[®] software lies in the power of its patented administrative interface, which allows the application to respond to learners' choices in a scenario. The pictures and content can be customized.

For more information about Access Technologies Group, Inc., Simentor[®] and Social Simentor[™], visit www.simentor.com

About Lucy Baney:

Lucy Baney, President and CEO of Access Technologies Group, the developer of Simentor[®] will lead the team, leveraging her years of business and technology expertise to create "**Social Simentor[™]**" She was honored to be awarded the Connecticut Women of Innovation Award in January 2007.



Ms. Baney's career began as a Systems Programmer. She advanced to sales with IBM, ultimately serving as an executive in product development and marketing. Ms. Baney's executive positions included Services Marketing, the Personal Computer line of business, creating a marketing organization with worldwide responsibility for all personal computer system software, including Open Client/Server Distributed Computing, Open Distributed Objects, and the OS/2 Operating System. She also led the worldwide marketing team in the 1992 strategic joint ventures among IBM, Apple and Motorola.

After 19 years with IBM, Ms. Baney left to pursue an entrepreneurial path. She purchased Access Technologies Group in late 1995, transforming it from a consulting company into an Internet application development company focusing on the development of e-learning courseware, simulations, authoring tools, and e-learning consulting.

Ms. Baney currently serves as a member of the Foundation Board for Norwalk Community College and is the Chairman of the college's IT Advisory Committee. She is on the board of The Business Council of Fairfield County, and is a founding advisory board member of the Academy of Information Technology, a magnet high school in Stamford, CT specializing in IT skills. Lucy is a member of the National Advisory Board of the National Workforce Center for Emerging Technologies (NWCET) in Seattle, Washington and served as its chairman for three years. Ms. Baney is on the board of directors for the Icelandic American Chamber of Commerce. She has also served on the board of the Greater Philadelphia Regional Workforce Partnership.

Ms. Baney is a graduate of Florida State University and lives in New Canaan, CT.

About Leslie Walker Hirsch:

Social Development and Sexuality Consultant for individuals with cognitive disabilities: *Leslie Walker-Hirsch, M.Ed., FAAIDD*, internationally known expert on social development for people with intellectual and developmental disabilities and co-creator of the widely acclaimed **CIRCLES**[®] multimedia curriculum series (now in its fifth iteration) will lead the Social Simentor creative team.

Leslie Walker-Hirsch is an educational consultant who specializes in social development and sexuality for individuals with intellectual disabilities. She is an author, advocate, lecturer and internationally known keynote speaker. As the co-creator of the **CIRCLES**[®] curriculum series, a multi-media teaching series for improving social competence and judgment that is designed especially to address the learning styles of youth and adults with cognitive disabilities, she is uniquely qualified to bring her expertise to the Social Simentor[™] digital experience.

Her book, **The Facts of Life...and More**, was released by Paul H. Brookes Publishers in February, 2007. Her other publications include Down Syndrome: Visions for the 21st Century, Chapter 22 "Building Relationships/Social and Sexual Development", A Guide to Consent, Chapter 4 "Consent to Sexual Activity", as well as many articles in journals and newsletters.

She is the founder and former chairperson of the American Association on Mental Retardation (AAMR) (now known as American Association on Intellectual and Developmental Disabilities (AAIDD), Special Interest Group on Social and Sexual Concerns. She was also President of the General Division and was honored as a Fellow in the AAMR. Ms. Walker-Hirsch currently serves as a member of the National Clinical Advisory Board of the National Down Syndrome Society, serves on the Proctor and Gamble panel of experts for the 8th grade and trains clinicians and professionals across America and abroad to use her techniques.

Leslie Walker-Hirsch has a Master's Degree in Special Education and Administration. She consults to schools, agencies and states to assist individuals with intellectual disabilities, their families and the professionals who support them on issues related to developing social competence and sexual safety.

See website: www.lesliewalker-hirsch.com

About Christine M. Casey

Dr. Casey's 30 year career in education has focused on creating educational opportunities for underserved populations through leveraging creative partnerships with community and private industry. While serving as the Assistant Superintendent for Curriculum and Instruction for the Stamford Public Schools in Stamford, CT, she lead the team that created one of the first "high tech" high schools in the nation; the nationally award winning Academy of Information Technology. As Director of Educational Initiatives for By Kids For Kids Co. (www.bkfk.com), she led the development of the BKFK/XEROX Inventive Thinking Toolkit, produced and nationally distributed by Scholastic. Dr. Casey has spent the past six years consulting in the north east region, specializing in creating programs for students with disabilities and underserved populations, including grant writing, developing funding sources and coordinating pilot activities. Dr. Casey holds a Doctorate and two Masters Degrees from Columbia University, Teachers College and a Masters Degree from Hunter College in NYC.

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