Social Policy Institute



Yifat Klein¹, Osnat Elnathan², Mayzahav Itiel Barkai², Miriam Palachi², Anat Halevy³, Yair Feingold³, Ariel Tikotsky⁴, and Guy Hochman³ ¹JDC-Israel; ²The Ministry of Education of Israel; ³Interdisciplinary Center Herzliya; ⁴Bar-Ilan University

Social Policy Institute at Washington University in St. Louis Research Brief 20-03 May 1, 2020

About This Initiative

This research brief is part of a series by the Social Impact Nudgeathon initiative. This initiative incorporated insights from behavioral economics into the design and delivery of social welfare programs. Developed through a partnership between the Joint Distribution Committee in Israel (JDC-Israel) and the Social Policy Institute (SPI) at Washington University in St. Louis, this initiative is among the first of its kind to launch in Israel.

Working in close collaboration, research teams from the United States and Israel investigated whether using behavioral insights to make small changes in the delivery of social service programs in Israel and Russia would positively influence the outcomes of those programs. St.Louis Washington University in St.Louis

Social Policy Institute



Authors

Yifat Klein JDC-Israel

Osnat Elnathan The Ministry of Education of Israel

Mayzahav Itiel Barkai The Ministry of Education of Israel

Miriam Palachi The Ministry of Education of Israel Anat Halevy Interdisciplinary Center Herzliya

Yair Feingold Interdisciplinary Center Herzliya

Ariel Tikotsky Bar-Ilan University

Guy Hochman Interdisciplinary Center Herzliya

Social Policy Institute

Key Findings

- This brief presents insights from research that explored the effectiveness of educator outreach on the Future Trend program, an educational and career program for youth with disabilities.
- In this study, educators were randomly assigned to one of two intervention conditions to test the effect that different message framings had on their willingness to learn more about Future Trend and make referrals into the program.
- Tested messages compared loss framings versus gain framings in conjunction with messages focused on different motivational levels (global, contextual, or situational).
- Data limitations do not allow us to draw rigorous inference, however, evidence suggests loss-frame messages led to higher followthrough.
- In a follow-up survey, participants indicated having little prior awareness of Future Trend and emphasized the important role the program plays in preparing youth with disabilities for successful independent living.

Background

Although government and nonprofit organizations have made efforts to improve educational and employment opportunities for young people with disabilities, these youth continue to face considerable barriers in trying to access high-quality education with the necessary supports to ensure they are prepared for career opportunities. When compared with their nondisabled peers, youth with disabilities are less likely to graduate from secondary school, enroll in and complete a 4-year college or university program, and secure future employment (Carter et al., 2012).

To address this persistent inequity, a collaborative effort led by the Ministry of Education in partnership with the Ministry of Social Affairs and Social Services, the National Insurance Funds, and the Joint Distribution Committee in Israel (JDC-Israel) launched a pilot of the Future Trend program. This program provides youth with disabilities a comprehensive technological education and the opportunity to obtain professional certification, gain real-world practical experience, and learn the life skills needed for successful employment.

Future Trend participants complete a 3-year training program that prepares them to take the same national certification examinations as their nondisabled peers. Graduates of the Future Trend program not only earn professional certification but also gain significant practical experience, making them well-prepared to compete for high-quality employment, meaningful military service, or other forms of national service.

Currently, the Future Trend program is offered in eight sites across Israel: Yarqa, Kiryat Bialik, Arara, Hod Hasharon, Petah Tikva, Rehovot, Jerusalem, and Ashkelon. Each year, a new cycle of the program begins in October and is open to 12 participants at each site. Recruitment for each new cycle of Future Trend begins in October and ends in June. Outreach efforts designed to increase awareness of the Future Trend program among youth with disabilities have used several strategies, including referrals made by educational personnel (on the local level) and marketing efforts via media outlets and social media platforms (on the national level). In addition, Future Trend is publicized through several organizations that serve parents of children with disabilities.

As part of the recruitment process, Future Trend holds "exposure events" for potential program candidates and their parents. These events include a detailed presentation of the Future Trend program and a panel discussion with program graduates and current Future Trend students. Although these events provide a comprehensive introduction to the Future Trend program, event attendance has been low, reaching only an estimated 100 youth out of the target population of 1,600 youth with disabilities (i.e., reaching about 6% of the target population).

Given this less-than-satisfactory reach of the exposure events, the current project's primary goal was to identify more effective outreach methods to increase

awareness and uptake of the Future Trend program. To achieve this goal, we developed an intervention using principles of behavioral economics to (a) increase the likelihood of educational teams (i.e., teachers and counselors) referring youth with disabilities to the Future Trend program, and (b) improve students' motivation to become better informed about the Future Trend program and opportunities. Notably, because the Future Trend study team had difficulty in getting contact information and direct access to youth with disabilities and their families, we chose to target our study's outreach strategy to educational teams serving youth with disabilities.

We implemented the behavioral intervention in two phases. Phase 1 consisted of an individual text message (SMS) sent to the educational staff and school teachers. The text message informed recipients that a personal message was waiting for them in their inbox on the Ministry of Education's internal portal; the personal message included an invitation to follow the link to the program's landing page.

The design of the personal message was based on the principles of Tversky and Kahneman's (1988) "framing effect" that suggests the way in which information is presented—as gains or losses—influences the recipient's judgement and decision making. People tend to be risk-averse when a problem is presented as a gain whereas they tend to be risk-seeking when the same problem is presented as a personal loss (Tversky & Kahneman, 1988). Because people are generally more sensitive to losses, they are inherently more motivated to avoid a loss rather than gain an equivalent prize (Tversky & Kahneman, 1981, 1988, 1991).

Tversky and Kahneman (1981) demonstrated the framing effect in a study that examined decisions related to death and survival rates in a group of 600 people. Their study showed that describing the same problem in a loss frame (i.e., 400 out of 600 people will die) or in a gain frame (i.e., 200 out of 600 people will be saved) affected the reflective choices of the decision maker. Similarly, Fryer et al. (2018) examined the impact of incentive framing of teachers on the math achievement of their students. Fryer and colleagues' study demonstrated that a loss-framed incentive (receiving bonuses upfront that must be paid back if their students did not improve) was more effective than a gain-framed incentive (receiving a bonus once the students demonstrated improvement).

In Phase 2 of our behavioral intervention, education team members were presented with a description of the Future Trend program and messaging that encouraged the educator to share the information with eligible students. Three variations of the messaging were developed to reflect the three levels of motivation global, contextual, or situational—based on the Hierarchical Model of Motivation (Vallerand, 1997). Vallerand's model is grounded in the theory of selfdetermination and holds that human motivation, as well as the factors that influence or mediate such motivation, operate at three vertical hierarchy levels with the global (or personality) at the top, contextual (or domain) in the middle, and situational (or state) at the bottom.

The global level is the most general and refers to a person's usual way of functioning or their personality and characteristic disposition to interacting with their environment. Motivation at the global level is the most stable and refers to relatively enduring individual differences with respect to people's motivations. The contextual level of motivation refers to a person's usual disposition toward interacting within a specific context, defined as "a distinct sphere of human activity" (Emmons, 1995). Examples of contextual motivation include social contexts such as education, work, leisure, and interpersonal relationships. The situational level represents the third and most specific level in the motivation hierarchy. Situational motivation refers to the motivation individuals experience while engaged in an activity. In other words, the situational level refers to the "here and now" of motivation.

The three levels of motivation can influence each other, with each level having the strongest influence on the level in closest proximity, producing either top-down or bottom-up effects. For example, top-down effects occur

when the global level affects the contextual level, which in turn, affects the situational level. When exploring human behavior, addressing each of the motivational levels will differentially influence people's motivation to behave in a certain way.

Research Objectives

This research was guided by two objectives. First, we sought to examine the effectiveness of a message framed as a loss (e.g., "Don't miss this opportunity") versus a message framed as a gain (e.g., "Take this opportunity") to encourage educational team members to follow the link to the program's landing page (i.e., "click through" the link) to get detailed information about the Future Trend program. Based on available research demonstrating the motivational power of a loss-framed situation (Hochman et al., 2014), we hypothesized that more participants in the loss-frame condition would click through to the Future Trend program description landing page.

Second, we wanted to investigate whether the level of motivational messaging in the three variations of the landing page would affect participants' likelihood of sharing the program information with potential program candidates and their parents. Research has shown that the best predictor for human behavior is a motivational level that is not too specific (as situational), or too broad (as global) (Ajzen & Fishbein, 1977; Weigel & Newman, 1976). Therefore, our second hypothesis stated that a contextual motivational level would be the most effective in influencing participants to share the Future Trend program information with potential candidates and their families.

Experimental Design & Research Method

We conducted a field experiment using a 2 x 3 betweensubjects design (two levels of framing condition: [loss vs. gain]) x (three levels of motivation: [global vs. contextual vs. situational]). The study sample included high school teachers, high school principals and their deputies, educational counselors, and integration coordinators, who worked directly with potential Future Trend candidates. Participants were recruited from six school districts across Israel.

Procedure

Each participant received a text message (SMS) indicating they had received a personal message that could be retrieved from the Ministry of Education's internal portal. Half of the study sample was sent a loss-framed message that included a link to the Future Trend program description landing page; the lossframed message described what the participant would lose in the event they did not open the link (i.e., loss of an opportunity to help students with disabilities) (Appendix A1). The remaining half of the sample received a gain-framed message that included an invitation to follow a link to the Future Trend program description landing page; this message described what the participant would gain by following the link to the program landing page (i.e., an opportunity to help students with disabilities establish a career path) (Appendix A2). The landing page provided program details and messaging that encouraged the recipient to share the Future Trend program description with potential candidates and their families.

For each intervention condition, we developed three variations of the messaging that encouraged referrals by sharing the program information, each of which was formulated to reflect one of the three levels of motivation (i.e., global, contextual, or situational, see Appendix B1 and B2). The three versions were randomly assigned (i.e., randomly displayed) to the educational staff upon entry to the landing page. Study participants could immediately accede to the dissemination request by choosing one of three platform buttons: e-mail, WhatsApp, or downloading a document that could be shared via other means. Participants were then asked to complete a brief questionnaire about their experience with the study intervention, the Future Trend program, the program description, and the number of program referrals or people with whom they had shared the program information. The data collection phase lasted four months (February to June 2019).

Measures

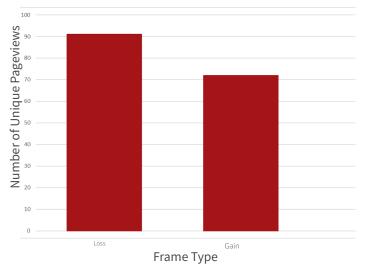
First, to assess the influence of framing on participants' likelihood to click through the provided link to access the program description landing page, we used a website analytic tool to obtain the number of unique visits to the landing page. Second, we administered a brief 11-item survey to measure participants' selfreported responses to motivational messaging (see Appendix C). The questionnaire gathered the following data:

- the number of program referrals made for prospective candidates and their parents;
- participant's (i.e., educator's) opinion of the program description page, such as quality of the information, including relevance, clarity, and potential appeal to the target audience;
- participant's opinion of the Future Trend program, such as potential to impact students' life trajectories, potential to help workforce entry, potential to contribute to students' quality of life as independent adults; and
- participant's prior awareness of the Future Trend program.

Results

To test our first hypothesis regarding the greater effectiveness of the loss frame condition, we planned to use "unique pageviews" data to determine the number of participants who followed the link provided in the e-mail message. Unique pageview data are generated each time a specific link is used to access a webpage; that is, multiple visits from the same user are aggregated and counted as one visit.

As illustrated in Figure 1, results showed that the lossframe message generated more visits to the program description landing page (n for loss frame=91, n for gain frame=72). Unfortunately, although the website analytics available to us could track the absolute number of unique pageviews for each framing condition, this analytic tool could not provide unique pageview data for the total number of people who accessed the internal portal and saw a loss/gain framed message. Thus, we were unable to calculate rates of **Figure 1:** Number of participants for each framing type who clicked on the provided link to access the Future Trend program description landing page



unique pageviews for each intervention condition, and therefore, we cannot draw conclusions about whether differences in webpage traffic were due to the framing effect of the message and whether the observed difference was significant.

To test our second hypothesis regarding the influence of the three levels of motivational messaging, we planned to analyze the data collected using the self-report surveys. However, we had a poor response rate, with only 23 participants completing the survey out of the 163 who used the link and entered the landing page (a 14% response rate). Moreover, the number of responses for each motivational level (n for global=9; n for contextual=2; n for situational=12) resulted in sample sizes too small for meaningful analysis.

While small sample sizes precluded drawing conclusions about the effect of motivational messaging on participants' likelihood to share program information, we highlight several findings based on the survey responses (n = 23, not all participants answered all questions):

- **56.5%** of respondents indicated the program information was irrelevant to them
- 17.4% indicated no prior awareness of the Future

Trend program

- **50%** indicated they would have shared the program information without our intervention
- **57%** indicated the landing page content motivated them to share program information with the target population
- **61.5%** *strongly agreed* the program information was comprehensive and clear
- **83.3%** *strongly agreed* the program information was compelling
- **71.4%** *strongly agreed* the program information was new to them
- **26.1%** of respondents made a program referral by forwarding the Future Trend information to potential candidates or to their parents; most of these respondents were not familiar with the program until participating in our study

Importantly, a large majority of participants strongly agreed that referral from an educator was essential to a student's enrollment in Future Trend, indicating that educators are a key group to consider for targeting interventions to increase awareness of Future Trend and increase referrals of potential candidates. In addition, a large majority of participants strongly agreed that Future Trend graduates will have improved odds of successful entry into the job market as well as the potential of the program to contribute substantially to the quality of life of a young adult with disabilities. Notably, these two majority responses indicate that the low rate of program referrals made during this study may not be due to a lack of understanding of the importance and potential benefits of the Future Trend program.

Study Limitations

We encountered limitations that must be considered when interpreting the study results. First, due to privacy restrictions we could not access contact information for youth with disabilities, who are the direct target population for the Future Trend program. Given this limitation, we chose to target our intervention to educational teams serving youth with disabilities. At the same time, not all persons on the educational teams (e.g., school principals, administrative staff) had direct contact with youth who have disabilities or their parents, which meant the program information had little relevance for those participants.

Second, the link to the program description webpage was not included in the initial text message sent to participants, but rather embedded in the personal message participants had to retrieve from the Ministry of Education's internal portal. This created information layers that required participants to take extra steps and effort. The problem with this type of "high-friction process" is that the extra burden on participants can quickly dissipate motivation to take action.

Third, the text messages were not sent directly from the study team and the study team had no control over the texting process. This limitation is important because it meant the study team could not control the times at which the text messages were sent or sending reminders to those who had not retrieved the study message from the internal portal.

Fourth, after implementing the study we encountered unexpected issues with collecting and analyzing webpage data, which created significant limitations on our ability to analyze and draw conclusions from the data. Of these, the most important limitation was that the webpage data could be obtained for absolute terms only (i.e., total number of landing page visits in each condition) and not in relative terms (i.e., the rate of landing page unique visits in each condition). In addition, we had insufficient data to assess and test the effectiveness of the message framing as well as the effect of the three levels of motivational messaging on participants' likelihood to share program information.

Last, we could not obtain objective data on the number of referrals made by participants but had to rely on participant self-reports of referrals. However, the survey was included at the bottom of the webpage, following the Future Trend program description. We had a poor response rate to the survey and it is possible that the survey's placement at the bottom of a page made it

easy for participants to overlook or skip the survey. Future research should consider sending the survey as a separate e-mail as a follow-up to exposure to the program information.

Conclusions and Implications

As mentioned, the study limitations and the limited amount of objective data available to the study team make it impossible for us to draw robust conclusions. However, with caution, we can say that our study findings regarding a loss-frame message are in line with findings of previous research (Tversky & Kahneman, 1981, 1988, 1991). Specifically, our study suggests that compared to a gain-frame message, using lossframe messaging resulted in a higher number of study participants motivated to learn more about the program.

Unfortunately, the poor response rate to the survey meant we did not have enough data to evaluate the effectiveness of each level of motivational messaging. Nevertheless, the survey responses provided by participants consistently underscore the importance of the Future Trend program and its potential benefits for youth with disabilities. In addition, the survey responses demonstrate that few educators had any awareness of the Future Trend program, even among those currently serving youth with disabilities.

Overall, these responses emphasize the urgent need to find more effective ways of publicizing Future Trend and ensuring youth with disabilities and their parents are informed about the opportunity Future Trend provides for these youth to acquire highly employable job skills and enhance their independence.

References

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. Psychological Bulletin, 84, 888–918. <u>https://</u> <u>doi.org/10.1037/0033-2909.84.5.888</u>

Carter, E., Austin, D., & Trainor, A. (2012). Predictors of postschool employment outcomes for young adults with disabilities. Journal of Disability Policy Studies, 23, 50-63. <u>https://doi.org/10.1177/1044207311414680</u>

Emmons, R. A. (1995). Levels and domains in personality: An introduction. Journal of Personality, 63(3), 341–364. <u>https://doi.</u> org/10.1111/j.1467-6494.1995.tb00499.x

Fryer Jr, R. G., Levitt, S. D., List, J., & Sadoff, S. (2012). Enhancing the efficacy of teacher incentives through loss aversion: A field experiment (No. w18237). National Bureau of Economic Research.

Hochman, G., Ayal, S., & Ariely, D. (2014). Keeping your gains close but your money closer: The prepayment effect in riskless choices. Journal of Economic Behavior & Organization, 107, 582–594. <u>https://doi.org/10.1016/j.</u> jebo.2014.01.014

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. Science, 211(4481), 453–458. <u>https://doi.org/10.1126/science.7455683</u>

Tversky, A., & Kahneman, D. (1988). Rational choice and the framing of decisions. In D. E. Bell, H. Raiffa, & A. Tversky (Eds.), Decision making: Descriptive, normative, and prescriptive interactions (pp. 167-192). New York, NY: Cambridge University Press.

Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference-dependent model. Quarterly Journal of Economics, 106(4), 1039–1061. <u>https://doi.org/10.2307/2937956</u>

Social Policy Institute

Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. Advances in Experimental Social Psychology book series. (Vol. 29, pp. 271–360). Academic Press.<u>https://doi.org/10.1016/</u> <u>S0065-2601(08)60019-2</u>

Weigel, R. H., & Newman, L. S. (1976). Increasing attitude-behavior correspondence by broadening the scope of the behavioral measure. Journal of Personality and Social Psychology, 33(6), 793–802. <u>https://doi. org/10.1037/0022-3514.33.6.793</u>

Acknowledgements

The SPI gratefully acknowledges the JDC-Israel, which provided financial and research support for this brief series. We especially appreciate the contributions of Sigal Shelach, Reeva Ninio, and Esti Moskovitz from the JDC-Israel to the implementation of this initiative. We would also like to thank Diane Wyant and Sarah Cowart for their editorial assistance on this brief. The authors of this research brief are grateful to DICE@IDC for their engagement in planning and implementing the experiment, and providing their research support and data analysis.

Disclaimer

This research brief reflects research work conducted by the authors, and does not necessarily represent the views or opinions of the JDC-Israel, the Government of Israel, or the Ministry of Education of Israel. The authors accept full responsibility for errors or omissions.

Suggested Citation

Klein, Y., Elnathan, O., Barkai, M.I., Palachi, M., Halevy, A., Feingold, Y., Tikotsky, A., & Hochman, G. (2020). Improving educational and career opportunities for youth with disabilities in the Future Trend program (SPI Research Brief No. 20-03). Social Policy Institute at Washington University in St. Louis.

Social Policy Institute

Appendix

Appendix A1: Message to educators using a loss-frame strategy and including an invitation to "click through" the provided link to access the Future Trend program description. Participants had to retrieve this message from the Ministry of Education's internal portal.

Dear Educator,

If a student of yours does not become an employable individual, then that loss to the workforce is really your loss.

Do not miss this opportunity to help your students gain the professional training that will allow them to become part of the workforce! Without professional skills to ensure stable employment, your students will have little possibility of achieving financial independence and enjoying the self-confidence and self-respect that comes from a successful career.

The Future Trend (Megame LeAtid) program, led by the Ministry of Education and its partners, aims to give youth with disabilities a comprehensive technological education. By referring eligible students to this program, you can help your students gain a profession for life.

To determine if you have students who might be eligible for this program, follow this link to get more details about the Future Trend program.

The future of your students is in your hands. Don't miss this opportunity to help them!

For more information click here.

Appendix A2: Message to educators using a gain-frame strategy and including an invitation to click on a link to a program description with eligibility criteria. Participants had to retrieve this message from the Ministry of Education's internal portal.

Dear Educator,

You have an opportunity to ensure your students have access to high-quality training that will prepare them for a career in technology and learn skills that will enable them to join the workforce in the future! This professional training will improve their prospects for a successful career not only by ensuring their financial stability but also by fostering their confidence in their abilities and enhancing their independence.

The Future Trend (Megame LeAtid) program, a collaborative effort led by the Ministry of Education, is designed to provide youth with disabilities with a comprehensive technological education, preparing them to obtain professional certification and gain real-world experience, thus positioning them to compete successfully for quality employment. You can help your students achieve their best lives by making them aware of the Future Trend program and the opportunity to gain a profession for life.

To determine if you have students who might be eligible for this program, follow this link to get more details about the Future Trend program.

The future of your students is in your hands. Take this opportunity to help them!

For more information click here.

Appendix B1: Landing Page for Each of the Three Motivational Levels (Translated from Hebrew)

Global level - level and type of motivation in general (e.g., helping others)

Dear Educator,

Every person is a world. Everyone has dreams, aspirations, expectations, and hopes for their future.

As you well know, joining the workforce has an important, positive impact on a person's quality of life. You have the power to help your students with disabilities establish a foundation for a satisfying career by sharing the attached message with your students.

(Program Description)

Want to help people acquire a profession? Share the attached message.

Contextual level - level and type of motivation in a context (e.g., helping others by educating student with disabilities)

Dear Educator,

Every student is a world. Everyone has dreams, aspirations, expectations, and hopes for their future.

As you well know, joining the workforce has an important, positive impact on the quality of life of students with disabilities. You have the power to help these students by sharing the attached message with your students who might be potential candidates for this opportunity.

(Program Description)

Situational level - level and type of motivation in a specific situation

Dear Educator,

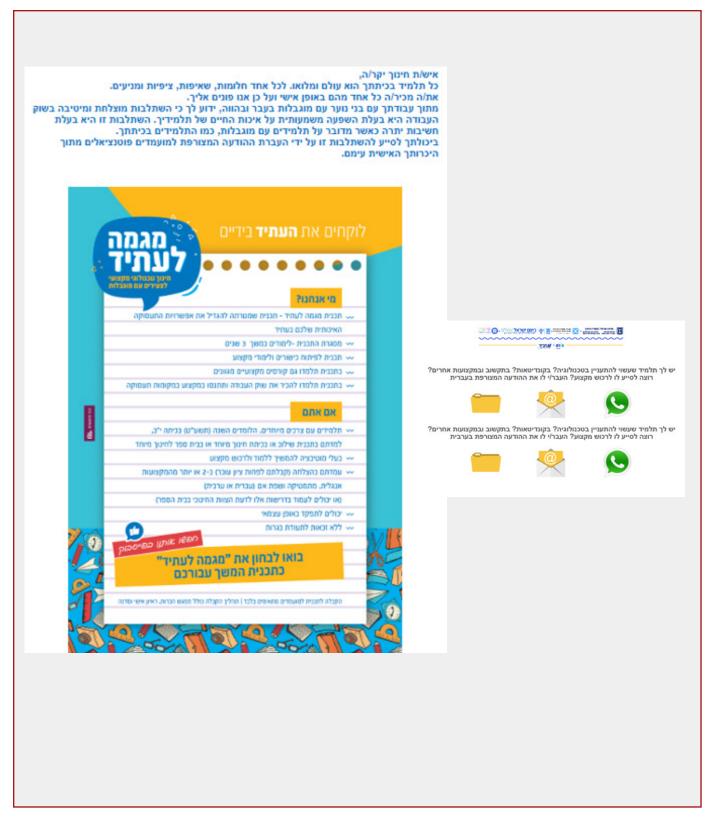
Every student in your class is a world. Everyone has dreams, aspirations, expectations, and hopes for their future. You know each student in your class personally, so we are reaching out to you.

From your work with students with disabilities, you know that joining the workforce has an important, positive impact on your students' quality of life. When it comes to students with disabilities, such as the students in your classroom, it is of the utmost importance that these students are given the training and supports they need to be prepared to join the workforce. You have the power to help your students by sharing the attached message with your students who you feel could benefit from this opportunity to gain career skills.

(Program Description)

Do you have a student who might be interested in technology? In information and communications technology or other technological professions? Would you like to help your student find a stable professional career? If so, please share the attached message with your students.

Appendix B2: The Original Hebrew Version for the Situational Level Condition



Appendix C: Survey to Study Participants

- 1. Using a 1-5 response scale where 1 = not at all, 2 = slightly, 3 = moderately, 4 = very much, 5 = extremely, to what extent the information on the program was:
 - a. Relevant to you
 - b. Clear
 - c. Comprehensive
 - d. Too long
 - e. Compelling
 - f. New to you
- 2. Have you heard about the Future Trend program before?
- 3. Have you referred students to the Future Trend program in the past?
- 4. How many program referrals did you make by forwarding the Future Trend information to a student with disabilities? (Response options: 0; 1-5; 6-10; 10+ referrals)
- 5. How many program referrals did you make by forwarding the Future Trend information to a parent of a student with disabilities? (Response options: 0; 1-5; 6-10; 10+ referrals)
- 6. If you did not make a referral today, are you planning to make referrals? If not, why not?
- 7. In your opinion, how important is it for educational team members to pass on the Future Trend information to potential candidates?
- 8. In your opinion, to what extent might the Future Trend program contribute to or benefit the future of a student with disabilities?
- 9. To what extent to do you agree with the following statements? (Response options: *Strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, strongly disagree*)
- 10. Without an educator referral, students will not attend the Future Trend program's exposure events.
- 11. The chance of a program graduate to successfully enter the job market is higher than that of a student who hasn't gone through the Future Trend program.
- 12. Referral of students by an educational team member is essential to enrolling students in the Future Trend program.
- 13. The Future Trend program can greatly contribute to students' quality of life.
- 14. To what extent do you think the content of the invitation you received has influenced you to share the Future Trend program information with potential candidates? (Response options: *not at all, slightly, moderately, very, extremely*)
- 15. If we had not reached out to you, would you have sent information about the Future Trend program to potential candidates anyway?