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ASSESSMENT OF PERCEIVED GENERAL SELF-EFFICACY ON THE INTERNET: DATA COLLECTION IN CYBERSPACE

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General perceived self-efficacy pertains to optimistic beliefs about being able to cope with a large variety of stressors. It is measured with a ten-item scale that has proven useful in cross-cultural research. Previous findings suggest that the construct is universal and that it applies to the majority of cultures worldwide. The present investigation adds a new facet to it: can perceived self-efficacy be measured as part of an interactive computer session while surfing the Internet? A total of 1,437 computer users responded to a survey on the web, half of them young men and women below the age of 26. These data were compared to 290 Canadian university students, 274 teachers in Germany, and 3,077 high school students in Germany. It turned out that all psychometric characteristics were satisfactory. Some evidence for validity emerged. It is suggested that innovative methods of data collection be considered when developing a psychometric scale.

Keywords: Self-efficacy; Optimism; Internet; World wide web; Psychometrics

INTRODUCTION

What happens when we publish a well-established psychometric inventory on a web page and then sit and wait until anonymous computer users take their time to respond to it? Do they respond at all? If so, what kind of data are created: useable or "garbage"?

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The present article deals with two issues: (a) the cross-cultural adaptation of a psychometric tool and (b) its distribution over the Internet. The main purpose is to examine whether an innovative method of data collection, the Internet survey method, would yield the same results as the traditional paper-and-pencil method. The Internet is still an untouched resource when it comes to psychometric research. It allows global data collection without encountering any participant. If this really works without threat to validity, cross-cultural adaptations of psychological measures could benefit greatly from this approach.

Moreover, a convenient way opens to tackle the question of whether a psychological construct is universal or indigenous. In the present case, previous evidence suggests that the theoretical construct of perceived self-efficacy is not indigenous for a particular culture, but rather it is universal. If no psychometric differences emerge in ethnically different populations of computer users, this would corroborate the assumption that perceived self-efficacy is indeed a universal construct and that the inventory can be used conveniently with most populations around the globe.

To provide a better understanding of the starting point of this project, the following section describes first the theoretical construct of perceived self-efficacy, and the second section pertains to its measurement.

Perceived Self-efficacy as a Psychological Construct

The construct of self-efficacy, which was introduced by Bandura, represents one core aspect of his social-cognitive theory (Bandura, 1977; 1997). While outcome expectancies refer to the perception of the possible consequences of one's action, self-efficacy expectancies refer to personal action control or agency. A person who believes in being able to produce a desired effect can conduct a more active and self-determined life course. This "can do"-cognition mirrors a sense of control over one's environment. It reflects the belief of being able to control challenging environmental demands by means of taking adaptive action. It can be regarded as a self-confident view of one's capability to deal with certain life stressors.

According to theory and research (Bandura, 1997), self-efficacy makes a difference in how people feel, think and act. In terms of feeling, a low sense of self-efficacy is associated with depression, anxiety, and helplessness. Such individuals also have low self-esteem and

harbor pessimistic thoughts about their accomplishments and personal development. In terms of thinking, a strong sense of competence facilitates cognitive processes and performance in a variety of settings, including quality of decision-making and academic achievement. When it comes to preparing action, self-related cognitions are a major ingredient of the motivation process. Self-efficacy levels can enhance or impede motivation. People with high self-efficacy choose to perform more challenging tasks (Bandura, 1997). They set themselves higher goals and stick to them. Actions are preshaped in thought, and people anticipate either optimistic or pessimistic scenarios in line with their level of self-efficacy. Once an action has been taken, high self-efficacious people invest more effort and persist longer than those who are low in self-efficacy. When setbacks occur, they recover more quickly and maintain the commitment to their goals. Self-efficacy also allows people to select challenging settings, explore their environments, or create new ones.

Self-referent thought has become an issue that pervades psychological research in many domains. It has been found that a strong sense of personal efficacy is related to better health, higher achievement, and more social integration. This concept has been applied to such diverse areas as school achievement, emotional disorders, mental and physical health, career choice, and sociopolitical change. It has become a key variable in clinical, educational, social, developmental, health, and personality psychology (Bandura, 1995; 1997; Maddux, 1995; Schwarzer, 1992; 1994).

Self-efficacy is commonly understood as being domain-specific; that is, one can have more or less firm self-beliefs in different domains or particular situations of functioning. But some researchers have also conceptualized a generalized sense of self-efficacy that refers to a global confidence in one's coping ability across a wide range of demanding or novel situations. General self-efficacy aims at a broad and stable sense of personal competence to deal effectively with a variety of stressful situations (Schwarzer, 1994).

Measurement of Generalized Perceived Self-efficacy in Different Cultures

Perceived self-efficacy can be measured in a specific manner with one or more test items. In the present study, however, generalized

perceived self-efficacy is assessed with a psychometric scale. The German version of this scale was originally developed and used by Matthias Jerusalem and Ralf Schwarzer in 1981 as a 20-item version and later as an improved 10-item version (Jerusalem and Schwarzer, 1992; Schwarzer and Jerusalem, 1995). Typical items are "Thanks to my resourcefulness, I know how to handle unforeseen situations," and "When I am confronted with a problem, I can usually find several solutions." The English version is given in the Appendix.

The instrument has been proven reliable and valid in various field studies. Being not only parsimonious and reliable, it has also proven valid in terms of convergent and discriminant validity. For example, it correlates positively with self-esteem and optimism, and negatively with anxiety, depression and physical symptoms. Previous studies are described in the manual (Schwarzer, 1993). The manual includes not only the scale in English, German, Spanish, French, Hebrew, Hungarian, Turkish, Czech, and Slovak, but it also presents the results of five studies conducted to examine the psychometric properties of the German version. The ten self-efficacy items were adapted to 25 languages by bilingual native speakers based on the German and English versions of the instrument. So far, studies have been conducted in 13 languages and even more countries, comparing the psychometric properties for the German, English, Dutch, Spanish, Russian, Greek, Arabian, Hungarian, Polish, Chinese, Indonesian, Japanese, and Korean versions (Schwarzer and Born, 1997; Schwarzer *et al.*, 1997; Zhang and Schwarzer, 1995). This represents a very solid base against which to assess a novel methodology.

Research Questions

The present study examines the psychometric properties of the General Self-Efficacy Scale when presented on the Internet as compared to traditional paper-and-pencil administration. This is done with the assumption that self-efficacy is a universal construct that applies to different cultures and that can be measured by inventories in different languages. The purpose is to confirm this assumption and provide measures that can be adopted in other countries for collecting further evidence. Moreover, cross-cultural comparisons are made between German, Canadian, and worldwide (Internet) samples.

METHOD

Measures

Three measures were presented from a computer web server, along with several items requesting some basic demographic information. Participants logged on to the server via an internet account and entered their responses using a web browser (such as Netscape).

General Perceived Self-efficacy

The 10-item scale described above was the key instrument for this report. The scale has been used in numerous research projects, where it typically yielded internal consistencies between $\alpha = 0.75$ and 0.91. Its stability has been examined in several longitudinal studies. In a sample of 246 German cardiac surgery patients who filled out the measure once before surgery and once after a half-year recovery period, the retest-reliability was $r = 0.67$ (Schwarzer and Schröder, 1997). In a sample of 140 teachers in Germany, a stability coefficient of $r = 0.75$ was found after one year (Schmitz, 1998). Over the same time period, 2,846 students in Germany filled out the scale twice, and a retest-reliability of $r = 0.55$ was found. Finally, for a two-year period there were coefficients of $r = 0.47$ for East German male migrants and $r = 0.63$ for their female counterparts (Schwarzer and Jerusalem, 1994). The entire scale can be found in the Appendix. Other language versions and references are available on-line at http://www.psychologie.de/schwarzer.

Test Anxiety

The *Test Anxiety Inventory* (TAI; Spielberger, 1980) was chosen to assess test anxiety. This is a 20-item measure with a four-point response format. Example items are: "While taking final examinations I have an uneasy, upset feeling," and "Thinking about the grade I may get in a course interferes with my work on tests."

Introversion

Introversion was a nine-point self-report rating, with 1 being *extroverted and liking to work in groups* and 9 being *introverted and liking to work alone*. Of the respondents, 58% described themselves as being

more or less introverted, whereas only 25% described themselves as more or less extroverted. The midpoint button (5) was either left untouched or explicitly chosen by 16%.

Procedure

The complete survey is on-line at http://www.ucalgary.ca/~mueller/tai-consent.html, and it follows all the general protocols for research participation, such as being anonymous and voluntary, although, of course, it does not get actual signed consent. The data are stored in a cumulative file on-line, to be fed into SAS or SPSS. This site was then seeded into several web search engine databases (e.g., WebCrawler®, YAHOO®, Alta Vista®, and so forth), announced to several educational technology discussion groups, psychology discussion groups, computer magazines, educational technology sites (e.g., International Society for Technology in Education), and otherwise promoted. This part of the study was conducted by John Mueller in the context of on-line test anxiety research. In order to maintain a focus on self-efficacy in this report, the test anxiety results will not be pursued here, but are available in Mueller (1998).

Samples

Internet

Out of 1,437 useable respondents (as of December 17, 1997), half were 25 years of age or younger. The age categories 15–20 and 21–25 were each filled with 24% of participants. Two percent were younger than 15, and 40% were between 26 and 50 years of age. There were 762 men (53%) and 583 women (41%), while six percent did not disclose their gender. The number of men was lower than might have been projected given stereotypes of gender differences in computer use. The majority came from North America (78%), with about 9% from Europe, and negligible numbers from other parts of the world.

The most common education level was "some college" (34%), but education level ranged from 11% with "some high school" to 19% with a Masters degree or beyond. Grade point average (GPA) was between 3.51 and 4.00 for 47%, and between 3.01 and 3.50 for 31% of the sample.

The most frequently reported income level was the under $15,000 category (20%), but there was a wide range: 13% fell into the $15,000–$25,000 category, 14% into the $25,000–$35,000 category, 17% fell into the $35,000–$50,000 category, and 38% were above $50,000.

These demographics compare well to the Georgia Tech survey of on-line users http://www.cc.gatech.edu/gvu/user_surveys) and other demographic surveys about WWW usage (e.g., http://ernie.bgsu.edu/departments/tcom/survey.html or http://www.teleport.com/~tbchad/stats1.html). In other words, the sample is not just the freshman male college student, and it is more gender balanced than most stereotypes expect.

Canadian University Students

There were 290 students, 104 women and 185 men, who were requested to fill out a questionnaire on students' reactions to a faculty strike at York University in Spring 1997. Most students were between 20 and 23 years old with a mean age of 22.6 (SD = 4.4) and a range from 18 to 49 years. Among other instruments, the students responded to the Perceived Self-efficacy questionnaire. This part of the study was conducted by Esther Greenglass.

Teachers in Germany

As part of a school innovation project, 274 teachers from ten schools in ten states of Germany responded to the Perceived Self-Efficacy questionnaire. There were 112 men and 150 women who taught in classes from grade 1 to 13, but most of them taught in grades 7–10 (12 teachers did not disclose their gender). Age was assessed in categories with 6% being 30 years old or younger, 29% being 31 to 40 years old, 43% being 41 to 50 years old, and 22% were 51 years or beyond.

German High School Students

Within the same research project just described, data from 3,077 high school students were available. There were 52% boys and 48% girls. They attended grade 7 (22%), grade 8 (24%), grade 9 (22%) and grade 10 or higher (24%).

The latter three samples serve as standards for comparison. The Canadian sample is appropriate because data were collected for the same English language version that was given on the Internet. The two German samples were chosen in addition since they are recent and are very large. Data were collected during the same time period as those on the Internet.

RESULTS

First, the item level analyses will be presented, followed by the sum score level analyses. The psychometric properties for the self-efficacy scale turned out to be satisfactory and in line with previous research. For the Internet data, the internal consistency was $\alpha = 0.87$, based on $n = 1{,}314$ participants with complete data. Similarly, in the Canadian college students sample, the consistency was $\alpha = 0.89$. This high reliability is typically found in studies where the items are presented one after the other, whereas in studies that scatter the items across a questionnaire, slightly lower coefficients emerge. This is the case in the German studies, where the internal consistency is $\alpha = 0.86$ in the teacher sample and $\alpha = 0.78$ in the high school student sample.

Factor analyses of the Internet data confirmed the unidimensionality of the scale, with eigenvalues of 6.96, 0.55, 0.47, and smaller. This replicates findings from 13 other samples, including the German ones, for which Schwarzer and Born (1997) report also a one-factor solution with similar eigenvalues of 4.9, 0.81, 0.72, and smaller. The ten loadings for the first principal component are 0.84, 0.87, 0.77, 0.75, 0.87, 0.87, 0.87, 0.82, 0.82, and 0.86.

Figure 1 displays the frequency distribution of the self-efficacy sum scores. This comes close to a normal distribution which, again, is in line with previous research. The chart in Fig. 1 represents the following descriptive statistics: mean = 29.28, SD = 5.22, kurtosis = −0.13, skewness = −0.35, based on 1,351 observations.

Table I displays the item means along with the sum score means for the four samples. It turned out that there is a higher similarity between the Canadian and Internet mean patterns on the one hand, and the two German mean patterns on the other. This might reflect a language difference, indicating that the item content is not equivalent across

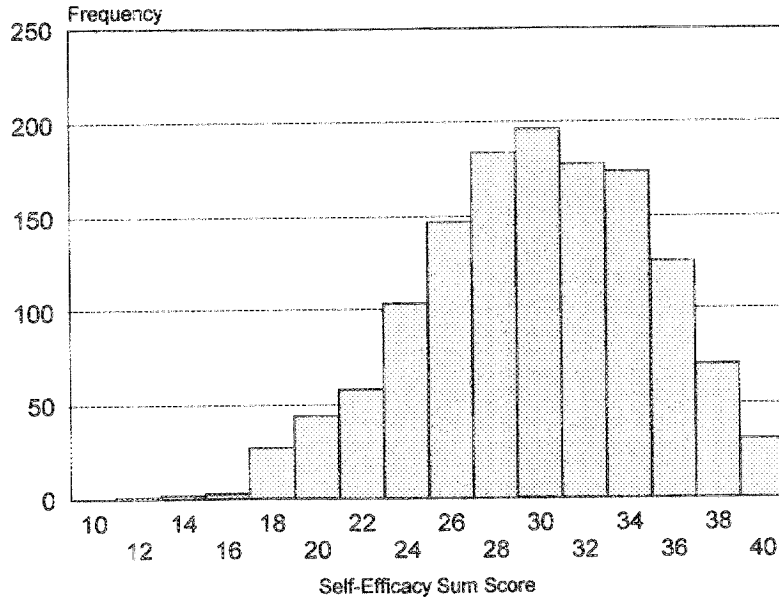

FIGURE 1 Frequency distribution of self-efficacy sum scores based on Internet on-line data.

TABLE I Item means in four samples

Item	*Internet*	*Canada*	*Teacher*	*Students*
1	3.28	3.29	2.90	3.07
2	2.55	2.87	2.96	3.10
3	2.58	3.07	2.86	2.94
4	2.96	2.99	2.59	2.72
5	2.85	2.87	3.05	2.97
6	3.32	3.31	2.66	2.72
7	2.82	2.89	2.84	3.09
8	2.88	3.01	2.48	2.94
9	3.04	3.12	2.98	2.91
10	2.99	3.07	2.97	2.86
Scale mean	29.3	30.52	28.23	29.31

languages. Since the foreign language adaptations have not been achieved by literal translations, this is not surprising.

The response range at the item level was from 1 to 4; correspondingly, the theoretical range of sum scores was from 10 to 40. The mean of 29.3 indicates that the scale is more sensitive to detecting individual

TABLE II Corrected item-total correlations and internal consistencies

Item	*Internet*	*Canada*	*Teacher*	*Students*
1	0.56	0.63	0.57	0.41
2	0.44	0.41	0.51	0.40
3	0.45	0.61	0.47	0.42
4	0.68	0.71	0.56	0.39
5	0.69	0.68	0.53	0.36
6	0.58	0.68	0.60	0.50
7	0.59	0.63	0.69	0.47
8	0.54	0.64	0.62	0.52
9	0.63	0.63	0.59	0.46
10	0.70	0.65	0.58	0.48
α	0.87	0.89	0.86	0.78

differences in the lower range than in the higher range. In other words, the scale could be more "difficult."

Table II presents the corrected item-total correlations for the four samples along with the internal consistencies. The Internet data are very similar to the data of the Canadian college student version. In each of the four samples, the correlations were high, and there was no single item that should be eliminated. In no case could the internal consistency be improved by eliminating a weak item.

Focusing on the mean differences among the samples, Table III displays descriptive statistics for each sample broken down by gender. In most samples, gender differences emerged, with men being higher in self-efficacy. There is a negligible, but significant, difference between men and women in the Internet data, $F(1, 1330) = 19.64$, $p < 0.001$, $\eta^2 = 0.015$. This is replicated for the Canadian university student sample $F(1, 287) = 9.07$, $p < 0.002$, $\eta^2 = 0.03$, and for the German high school students, $F(1, 3062) = 23.13$, $p < 0.001$, $\eta^2 = 0.008$. However, for the German teacher sample, gender differences did not become significant. German teachers score lower, on average, than the other three samples in the present study. The contrast between German teachers and the Internet sample is significant ($t = 3.16$, $df = 1709$, $p < 0.01$). More samples in Table III are given for comparison, but those are discussed elsewhere (Schwarzer and Born, 1997). All in all, the comparability to the on-line sample is excellent.

Group Differences at the Item Level

To examine whether the Internet sample can be characterized by unique responses to particular test items, a comparison of samples, item

TABLE III Self-efficacy scale means and standard deviations broken down by sample and gender

Sample	*Gender*	*Mean*	*SD*	*n*
Internet	Women	28.57	5.21	577
	Men	29.84	5.15	755
Canada	Women	29.87	4.98	185
	Men	31.64	4.47	104
German teachers	Women	28.36	5.25	110
	Men	28.25	4.86	149
German students	Girls	28.93	4.27	1,477
	Boys	29.65	3.99	1,587
Germany (others)	Women	28.73	5.40	1,138
	Men	29.91	4.51	977
Hong Kong	Women	22.27	4.96	724
	Men	24.68	4.86	342
Indonesia	Women	30.04	5.12	260
	Men	30.17	5.08	276
Japan	Women	20.17	6.00	236
	Men	20.28	6.43	194
Korea	Women	28.08	6.09	111
	Men	27.13	6.70	35
Syria	Women	28.95	4.73	149
	Men	29.05	4.08	115
Russia	Women	31.38	4.60	290
	Men	32.70	4.84	205
Poland	Women	27.13	5.25	415
	Men	29.03	4.70	155
Hungary[1]	Women	28.18	5.09	39
	Men	28.30	3.76	25
Greece	Women	29.60	3.89	50
	Men	31.94	3.84	50
The Netherlands	Women	30.66	5.53	519
	Men	31.86	4.89	178
Great Britain	Women	28.97	5.43	193
	Men	31.15	4.06	26
Costa Rica	Women	33.04	4.60	602
	Men	33.50	4.16	351

Note: [1]In the Hungarian sample gender was missing in 95 cases (59.7%).
Studies on samples 5 to 17 are published in Schwarzer and Born (1997).

by item, was done. To remove the confounding factor of foreign language adaptation, the German samples were left out of this comparison. Thus, the question was whether Internet users responded differently than Canadian university students to any of the ten items. This was achieved by computing a MANOVA with ten items as a set of dependent variables and the two groups as the independent variable. Multivariate results were significant, with Wilks's $\Lambda = 0.89$ (Exact $F(10, 1220) = 14.78$, $p < 0.001$), which mirrors 11% of item variance

TABLE IV Item-by-item group comparison for the English version

	Internet		*Canada*		*F*	*p*	η^2
Item	*Mean*	*SD*	*Mean*	*SD*			
1	3.3	0.7	3.3	0.6	0.56	0.46	0.00
2	2.5	0.7	2.9	0.7	45.06	0.00	0.04
3	2.6	0.8	3.1	0.7	98.34	0.00	0.07
4	3.0	0.8	3.0	0.7	1.86	0.17	0.00
5	2.9	0.8	2.9	0.7	0.93	0.33	0.00
6	3.3	0.7	3.3	0.7	0.01	0.94	0.00
7	2.8	0.9	2.9	0.8	4.37	0.04	0.00
8	2.9	0.8	3.0	0.7	7.61	0.01	0.01
9	3.0	0.8	3.1	0.7	4.93	0.03	0.00
10	3.0	0.8	3.1	0.7	6.59	0.01	0.01

accounted for by group membership. Table IV displays the univariate statistics in association with means and standard deviations of the two samples.

For six items, significant group differences emerged. The strongest mean difference occurred for Item 3 ("It is easy for me to stick to my aims and accomplish my goals"), with seven percent of explained variance. The Canadian students scored on average higher than the online respondents, as they also did for Item 2 ("If someone opposes me, I can find means and ways to get what I want"), accounting for four percent of the variance. Item 3 refers to academic achievement, Item 2 to social assertiveness. In both cases, the Internet users appeared to be less convinced of their competence than the students. All other differences are negligible.

Further Evidence for Validity

In the Internet data set, there was no correlation between age and self-efficacy ($r = 0.04$), which is in line with previous findings. There are, however, other significant associations that shed light on the validity of the scale. The correlation with test anxiety was $r = -0.40$, with introversion $r = -0.16$, with GPA $r = 0.19$, and with income $r = 0.18$. The negative association with anxiety was found many times before and had to be expected. The other three findings are new and require comments. A positive association with GPA supports the assumption that self-efficacious individuals set higher goals for themselves and tackle more difficult tasks, and, thus, perform better in school. The

finding that introverts are slightly less self-efficacious than extroverts confirms common sense, but requires further research into causes and effects. Finally, finding somewhat more efficacious people on the higher income levels is also intuitively appealing because self-efficacious individuals perform better on all kinds of academic tasks and seem to cope better with life overall, including challenges on the job.

DISCUSSION

The present study focused on a comparison of data collected on the Internet with data collected in the traditional paper-and-pencil manner. It was found that the psychometric properties investigated in this study were satisfactory. Internal consistencies, item-total correlations, and factor loadings indicated that the General Self-Efficacy Scale can be seen as homogeneous and unidimensional. By achieving these characteristics it has been suggested that the self-efficacy construct tends to be a universal one, claiming construct validity across very different cultures and assessment schemes.

Some differences emerged. For example, teachers in Germany scored lower than the other three groups. However, recent evidence suggests that this might have been a time-related effect because the same teachers later improved their self-efficacy levels (Schmitz, 1998). Within the English-language version of the instrument, there was a mean difference between the Internet users and the Canadian university students, with the latter scoring slightly higher. This has been found due to their responses to Items 3 and 2 that refer to academic achievement and social assertiveness, respectively. Since the majority of Internet users describe themselves as introverts, they should not endorse Item 2, compared to the students who might be less introverted. Thus, the item-specific mean difference between these two samples, in conjunction with related information, adds to the validity of the instrument.

The data indicate that men, on average, were slightly higher on general self-efficacy than women. This held in three of the four groups studied and was also observed earlier across cultures and ages (Schwarzer and Born, 1997). Thus, men were significantly more likely than women to demonstrate global confidence in their ability to deal

effectively with a variety of stressful situations and to control challenging environmental demands. Control may involve the opportunity to be autonomous, the ability to use stressful situations to one's advantage. Lawler and Schmied (1992) report that the control component of hardiness was most important in determining the future health of women. A sense of control is derived from the perception of autonomy. And, in general, women are less likely than men to be in social positions that give them autonomy. At the same time, women are socialized to conform to the prescriptions of the feminine gender role which emphasizes dependency and interdependence more than autonomy and independence (Greenglass, 1982). Thus, gender differences in self-efficacy may be explained by invoking societal and status differences associated with women and men, as well as differences in socialization that are ubiquitous in our society.

Gender differences in self-efficacy are not universal. For example, research studies on self-efficacy in middle-school students (Pajares, 1996) and on math self-efficacy in high school students (Pajares and Kranzler, 1995) report no significant gender differences. Still other studies report that men were higher in self-efficacy in computing and marketing, and women were higher than men in self-efficacy in statistics (Bosscher *et al.*, 1995). Thus, gender-related differences in both general and domain-specific self-efficacy are not generally consistent. With less stringent adherence to traditional gender roles, particularly in women, the differences would be expected to continue to diminish even more in the future.

In cross-cultural studies that use multilanguage versions of the same inventory, the endorsement of items can be seen as being multiply determined. Among the factors that influence the endorsements are characteristics of the cultural context, those of item wording, and numerous biases, such as situational circumstances of test administration. With this in mind, it is surprising that there are almost no differences in the psychometric characteristics and mean levels of the instrument when presented on the Internet compared to the paper-and-pencil method various languages.

There are to this point no other published comparisons of on-line psychometric results to those obtained from the conventional administration of a psychological inventory. However, a similar analysis was

recently performed by Pasveer (1997) for the construct of "self-trust." In her case, the results for several hundred subjects responding on-line were quite comparable to those obtained in a classroom setting. Thus, it seems that on-line data collection is a promising method for investigating the generality of a psychological construct. In fact, the web browser software can even be set up to administer an inventory on a local-area network in lieu of paper-and-pencil administration, further illustrating its value because this strategy does not require expensive commercial test administration software.

The psychometric properties of the General Self-Efficacy Scale are now established not only for many languages, but also for interactive screen presentation. Future research should, in particular, focus on validity and intervention. How can self-beliefs be changed, and how can this instrument reflect such changes? Are more specific measures more appropriate for this purpose? Perceived self-efficacy is now a well-established construct, based on social-cognitive theory, and has high explanatory and operative power (Bandura, 1997). That is, perceived self-efficacy not only explains human functioning quite well, it is also easily alterable by interventions. The General Self-Efficacy Scale can be used tentatively for screening people at risk for coping deficiencies, which can set the stage for subsequent prevention programs. Collaborative efforts of psychologists from the global community are needed to foster cross-cultural validity and intervention studies in this field.

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APPENDIX

Generalized Perceived Self-efficacy

	Not at all true	*Hardly true*	*Almost true*	*Very true*
(1) I can always manage to solve difficult problems if I try hard enough.	1	2	3	4
(2) If someone opposes me, I can find means and ways to get what I want.	1	2	3	4
(3) It is easy for me to stick to my aims and accomplish my goals.	1	2	3	4
(4) I am confident that I could deal efficiently with unexpected events.	1	2	3	4
(5) Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	2	3	4
(6) I can solve most problems if I invest the necessary effort.	1	2	3	4
(7) I can remain calm when facing difficulties because I can rely on my coping abilities.	1	2	3	4
(8) When I am confronted with a problem, I can usually find several solutions.	1	2	3	4
(9) If I am in trouble, I can usually think of something to do.	1	2	3	4
(10) No matter what comes my way, I am usually able to handle it.	1	2	3	4