PŘÍLOHY

Příloha č. 1. – Překlad dotazníku Children's Nowicki-Strickland Internal-External Control Scale

Škála interního-externího místa kontroly (CNSIE)

<u>Children's Nowicki-Strickland Locus of Control Scale (Nowicki & Strickland, 1973; Dolejs & Laštůvková, 2015)</u>

Tento dotazník obsahuje 40 otázek. Snažíme se zjistit, co si kluci a holky ve tvém věku myslí o určitých věcech. Chceme, aby ses při odpovídání na otázky řídil/a tím, jak to TY cítíš. Nejsou zde správné, ani nesprávné odpovědi. Nezdržuj se příliš dlouho u jedné otázky, ale snaž se odpovědět na všechny otázky v dotazníku.

		Ano	Ne
1	Myslíš si, že se většina problémů vyřeší sama, když si s nimi nebudeš lámat hlavu?		
2	Myslíš si, že můžeš zabránit tomu, abys chytil rýmu?		
3	Existují podle tebe děti, které mají od narození ve všem víc štěstí?		
4	Je pro tebe většinou důležité dostávat dobré známky?		
5	Dávají ti často za vinu věci, za které nemůžeš?		
6	Myslíš si, že když se člověk dostatečně usilovně učí, může zvládnout jakýkoli předmět?		
7	Máš pocit, že většinou nemá cenu se snažit, protože to stejně nedopadne dobře?		
8	Myslíš si, že když ráno začne dobře, bude to dobrý den, ať už se pustíš do čehokoli?		
9	Myslíš si, že rodiče většinou naslouchají tomu, co jim jejich děti říkají?		
10	Věříš tomu, že můžeš přivolat dobré věci tím, že si je budeš přát?		
11	Když jsi za něco potrestaný/á, máš obvykle pocit, že pro to nebyl žádný pádný důvod?		
12	Je pro tebe většinou těžké změnit názor kamaráda?		
13	Myslíš si, že týmu pomůže vyhrát spíše fandění než štěstí?		
14	Připadá ti skoro nemožné změnit jakýkoli názor tvých rodičů?		
15	Myslíš si, že by ti měli rodiče dovolit, aby ses většinou rozhodoval/a sám/a za sebe?		
16	Připadá ti, že když něco zkazíš, můžeš to jen těžko napravit?		
17	Věříš tomu, že se většina dětí rodí se sportovním nadáním?		
18	Je většina tvých vrstevníků silněiší než tv?	П	П

		Ano	Ne
19	Myslíš si, že jeden z nejlepších způsobů, jak vyřešit většinu problémů, je prostě na ně nemyslet?		
20	Máš pocit, že máš hodně možností při rozhodování, kdo budou tví kamarádi?		
21	Když najdeš čtyřlístek, věříš, že ti přinese štěstí?		
22	Máš často pocit, že to, jestli děláš domácí úkoly nebo ne, moc neovlivní tvé známky?		
23	Myslíš si, že když se stejně starý kluk/holka rozhodne, že tě uhodí, můžeš tomu jen těžko zabránit?		
24	Měl/a jsi někdy talisman pro štěstí?		
25	Myslíš si, že to, jestli tě lidé mají nebo nemají rádi, závisí na tom, jak se chováš?		
26	Pomohou ti většinou rodiče, když je o to požádáš?		
27	Měl/a jsi někdy pocit, že když na tebe lidé byli zlí, neměli k tomu žádný důvod?		
28	Věříš tomu, že většinou můžeš ovlivnit, co se stane zítra tím, co uděláš už dnes?		
29	Myslíš si, že pokud se má stát něco zlého, stane se to, ať děláš, co děláš?		
30	Myslíš si, že si děti mohou prosadit svou, když to nevzdávají?		
31	Připadá ti většinou marné snažit se doma prosadit svou?		
32	Myslíš si, že když se stane něco dobrého, je to díky tvrdé práci?		
33	Máš pocit, že pokud se někdo z tvých vrstevníků rozhodne být tvým nepřítelem, nemůžeš s tím skoro nic udělat?		
34	Připadá ti, že je pro tebe jednoduché přesvědčit tvé kamarády, aby dělali to, co chceš?		
35	Připadá ti, že obvykle nemůžeš moc mluvit do toho, co dostaneš doma k jídlu?		
36	Máš pocit, že když tě někdo nemá rád, nemůžeš s tím nic moc dělat?		
37	Máš obvykle pocit, že je skoro zbytečné se ve škole snažit, protože je většina ostatních dětí zkrátka chytřejších než ty?		
38	Myslíš si, že když budeš věci plánovat dopředu, dopadnou díky tomu lépe?		
39	Zdá se ti, že většinou nemůžeš moc mluvit do toho, co se tvá rodina rozhodne dělat?		
40	Je podle tebe lepší být chytrý/á než mít štěstí?		

Děkujeme Ti za vyplnění dotazníku.

Ještě než dotazník odevzdáš, prolistuj ho prosím ještě jednou a překontroluj, zda jsi nepřehlédl/a některou z otázek.

Příloha č. 2. – Manuál k dotazníku Children's Nowicki-Strickland Internal-External Control Scale (včetně skórovacího klíče)

Children's Nowicki-Strickland Internal-External Locus of Control

Part I

General Information:

The Nowicki-Strickland locus of control scales were designed to assess the construct of locus of control of reinforcement. Rotter (1966) has defined locus of control of reinforcement as the perception of a connection between one's action and its consequences.

In 1969, Nowicki and Strickland constructed and published the Children's Nowicki-Strickland Internal-External control scale (1973). This test is appropriate for children from ages 9 through 18. It soon became apparent that there were no comparable instruments for those interested in looking at locus of control orientation in subjects younger than 9 and older than 18. Rotter's scale was used in the majority of studies using adults but there was no comparable downward extension of this instrument for children. In additions, the great majority of adult scales were only appropriate for college ages and educated adults. To fill this void Emory researchers have constructed an upward extension of the CNSIE, the Adult Nowicki-Strickland Internal-External control scale (ANSIE). It has a simple reading level, acceptable reliability and initially satisfactory validity information. There is a college (C) and noncollege (NC) form.

In addition, as an aid for investigators who were looking at younger children in efforts to assess antecedent relations to locus of control orientation, a Pre-school and Primary form of the CNSIE was constructed (the PPNSIE). After various formats were attempted, the PPNSIE presents items in a cartoon type format, a form for males (m) and a form for females (f).

Finally, a variant of the adult scale was devised so as to be more appropriate for older adults. The Geriatric Nowicki-Strickland Internal-External control scale is especially constructed for use with those subjects 65 years of age and older.

With the completion of the Geriatric form (GNSIE), there were comparable locus of control scales available for preschool through geriatric populations. The life-span series allows for the collection of data from different developmental ages. The potential usefulness of having such instruments is significant. For example, it allows for the simultaneous assessment of this construct for all generations of a family. The life-span series allows for the assessment of the construct in longitudinal studies. An added bonus is that at certain age levels there are, in essence, parallel forms. For example, there are norms available for the Preschool-Primary scale at the second and third grade level where the Children's form is also appropriate.

Part II

Directions for Administering and Scoring:

Administration

The administration and scoring of the Nowicki-Strickland locus of control Life Span scales requires no special preparation other than knowing the test materials well enough to read them. However, and this is especially true with the younger children, the test administrator should pronounce the words clearly and slowly when he/she is reading the scale items to the subjects. Although with average fifth graders and above the subjects can complete the scales by themselves it is suggested that the examiner read the items aloud to make sure all subjects understand and to keep them working at the same pace. When reading the items aloud, the examiner ought to repeat each item twice.

The scales can be administered to groups of any size or to an individual depending on the testing situation. With younger children or in cases where examinee handicaps may make personal attention more important, the scales should be administered in smaller groups or individually.

The exceptions to the general instruction for administration of the different scales will be covered in each section describing the specific scale. However, some general comments are appropriate here. The instructions for each scale are generally the same and go as follows:

"We are trying to find out what men and women your age think about certain things. We want you to answer the following questions the way <u>you</u> feel. There are no right or wrong answers. Don't take too much time answering an one question, but do try to answer them all."

For the younger children or those subjects who might have difficulty understanding the task it is suggested that the examiner have a practice session on the identification and meaning of yes and no. The usual procedure is to present two questions to see if the subjects understand what they are being asked to do. Generally the subjects are asked (1) Are you a boy (girl)? If you are, draw a circle around yes. If you are not, draw a circle around no. After each question the examiner takes time to correct and explain. In most cases these directions and the additional help are sufficient for the successful completion of the scale.

All forms of the scale usually take from ten to fifteen minutes to administer. The younger the subjects, the longer the test administration time.

It might be proper at this point to comment on an often asked question by the examinees: "what should I do if I can answer both yes and no to a question?" The usual response to this question has been to assure the subject that this is not an unusual happening and to tell him/her that if it is a little more yes than no then answer yes; if it is a little more no than yes then answer no. They are urged to pick one or the other response and to try to answer that and all items.

Scoring

For all the scales, the score is the total number of items answered in an externally controlled direction. The externally keyed responses are presented in tables at the end of the sections relating to each of the tests.

Part III

Psychometric Characteristics:

Under this heading we will discuss the information concerning the item statistics, internal consistency and test-retest reliabilities of the 40 item scale.

Test Construction

The Children's Nowicki-Strickland Internal-External control scale was the first of the series to be constructed. The basic measure will be described and evidence presented in support of its psychometric integrity. Construct validity support from various studies will also be presented. Additional information can be found in Nowicki and Duke (1983).

The Nowicki-Strickland Internal-External control scale is a paper and pencil measure of the locus of control measure consisting of 40 questions that are answered by marking either the yes or no place next to the question. The final form of the scale (Table 1) derived from work which began with the construction of a large number of items (n=102) based on Rotter's definition of the internal-external control of reinforcement dimension. The constructed items described reinforcement situations across areas such as affiliation, achievement, and dependency. School teachers helped in the construction of the items. The goal of such item construction was to make the items readable at the Third grade level yet appropriate for older students. To accomplish such a goal, the 102 items along with Rotter's definition of the locus of control dimension were given to a group of clinical psychology staff members (n=9) who were asked to answer the items in an external direction. Items were dropped on which there was no complete agreement among the judges. This left 59 items which made up the preliminary form of the test. The 59 item form of the test was then given to a sample of children (n=152) ranging from third through ninth grades. Means for this testing ranged from 19.1, sd = 3.86 at the third grade to 11.6, sd = 4.26 at the ninth grade with higher scores associated with a external orientation. Controlling for IQ, internals performed significantly better than externals on achievement test scores ($\underline{t} = 3.78, \underline{df}$ = 48). Test-retest reliabilities for a six week period were .67 for the eight to 11 year old group (n = 98) and .75 for those in the 12 to 15 year old group (n = 54).

Item analysis was computed to make a somewhat more homogenous scale and to examine the discriminative performance of the items. The results of this analysis, as well as comments from teachers and pupils in the sample led to the present form of the scale consisting of 40 items.

The 40 item scale was administered to a large number of children ranging from the third through the 12th grade to obtain reliability estimates, demographic measures and construct validity information. The sample consisted of 1017 elementary and high school students most of whom were Caucasian. All schools were in a county bordering a large metropolitan school system.

Socioeconomic data obtained from the school records and Hollingshead Index of Social Position (1957) rankings indicated that although the lower level occupations were somewhat over represented, all levels, except the very highest one, were well represented. Intelligence test scores for males and females in grades 3 through 10 ranged from means of 101 to 106 as measured by Otis Lennon scales. There were no significant differences across groups.

Initial research showed that first and second grades had some difficulty with the preliminary instrument so that it was decided to concentrate on the third through 12th grades.

Item Statistics

Nowicki and Strickland (1973) present biserial item correlations for males and females at the third, seventh, and tenth grades (see Table 1). The majority of item-total relations are moderate but consistent for all ages.

In addition, Table 2 presents the percentages of responses scored in the external direction for these same grade levels for males and females.

Table 3 presents the comparison (of percent of external responses) between eighth grade black subjects and white subjects on CNSIE items. It can be seen that there were significant differences for items 1, 3, 7, 19, 23, 27, 28, 31, 32 and 37; these are the items that black subjects responded to externally significantly more often than white subjects. In fact, in only one case did black subjects endorse an internal item significantly more often than white subjects (item 12).

Young (1974) has looked at the item variances in deaf adolescents and found that in comparison with hearing teenagers, there was more variance on items 3, 14, 15, 16, 18, 21, 23, 33, and 40.

Internal Consistency

Nowicki and Strickland (1973) reported estimates of internal consistency via the split-half method, corrected by Spearman-Brown $\underline{\mathbf{r}}=.63$ (grades 3, 4, 5); $\underline{\mathbf{r}}=.68$ (grades 6, 7, 8); $\underline{\mathbf{r}}=.74$ (grades 9, 10, 11); $\underline{\mathbf{r}}=.71$ (grade 12). These reliabilities are satisfactory in light of the fact that these items are not arranged according to difficulty. Since the test is additive and items are not comparable, the split-half reliabilities tend to underestimate the true internal consistency of the scale.

Others have reported information concerning the internal consistency of the CNSIE. Anderson (1976) reported KR20 = .68 for third grade students (n = 80). Wyner and Blanchard (1976) reported coefficient alphas of between .65 to .70 in elementary school age children (short form of the CNSIE, n = 166).

Nowicki (1976) has reported the results of a factor analysis of children in elementary (n=333), junior high (n=399, and high school (n=379). The factors are presented in Table 4. Other factor analyses were reported by Rowe (1976) and Piotrowski (1976). In addition, Kendall, Finch, and Little reported factor analyses of normal (n=107, mean age 0.7 years), emotionally disturbed (n=157, mean age 11.1 years) and juvenile delinquent (n=185, mean age 15.1 years) groups. While the factor analysis of normals was comparable to those done with previous normal groups, those computed for the emotionally disturbed and juvenile delinquent groups were substantially different (see Table 5).

Test-Retest Reliability

Nowicki and Strickland (1973) reported test-retest reliabilities sampled at three grade levels, six weeks apart; .63 for third graders (n=99), .66 for seventh graders (n=117), and .71 for the tenth graders (n=125). These figures were approximated in 12^{th} graders (Nowicki and Roundtree, 1971) who showed a test-retest reliability of .76 over 5 weeks. Stone (1976) reported an \underline{r} =.59 (n=77) for the short form of the CNSIE for grades 3-6 (children 10-11 years of age) over 12 weeks.

Thomas (1973) reported significant test-retest reliability for the CNSIE based on 457 institutionalized children (age from 7-14) over a one year period. Likewise, Edwards (1972) found test-retest reliability of .63 over a nine month time period for children in grades 3-6 (n=202). Anderson (1976) reported a test-retest reliability coefficient of .67 over a six week period for grade 3 and 4 subjects (n=80).

Discriminative Validity

A prime goal of those who construct locus of control scales is to keep social desirability at a minimum. Nowicki and Strickland (1973) reported nonsignificant correlations between locus of control scores and social desirability for subjects in grades three to twelve. Likewise, nonsignificant correlations were found by Wyner and Blanchard, (1976) with 166 children grades 3-6.

Intelligence is another variable that should be unrelated to LOC scores. Nowicki and Strickland (1973) and Nowicki and Roundtree (1971) report nonsignificant correlations between the CNSIE scores and IQ scores.

It further appears that sex of the subject does not lead to different locus of control scores. The mean score of males and females is essentially the same when compared to equivalent age levels (see Tables 6 to 8 that present means and standard deviations).

It appears that the variables of gender, social desirability and intelligence may have minimal confounding effects on Children's Nowicki and Strickland locus of control scores. Further data is presented by Nowicki and Duke (1983).

Construct Validity (Further Evidence)

In terms of convergent validity support for the CNSIE, Nowicki and Strickland (1973) reported data showing moderate relations between the CNSIE and other measures of locus of control. For example, with the Intellectual Achievement Responsibility scale (Crandall, Katkovsky, & Crandall, 1965) there were significant correlations with the I+ but not the I- scores, with Black third (n-182) and seventh graders (n=171); (third grade, \underline{r} =.31, p<.01; seventh grade \underline{r} =.51, p<.01). In addition the correlation with the Bialer-Cromwell scale was also found to be significant (\underline{r} =.41, p<.05), in a sample of white children (\underline{n} =29) aged nine through eleven.

If a measure of a construct such as locus of control has been found to be related to other variables in a theoretically consistent fashion then the measure gains some degree of construct validity for the CNSIE. The data will be divided up into the major areas of demographic, achievement competence, constitutional and personality characteristics.

<u>Social Class:</u> Nowicki and Strickland (1973) reported a significant relation between CNSIE scores and social class with internality being moderately but significantly related to higher social class. This relation was also found by several investigators (e.g. Ludwigsen & Rollins, 1970).

Race: In terms of race, it has been found that blacks score more externally than whites (Marcus, 1975; Nowicki 1976; Fryre and Carlson, 1976). It can be seen in Tables 6, 7, and 8 that the expected movement of scores toward a more internal orientation with age is not followed by the black subjects. In fact, in most cases blacks became more external with age. It is difficult to separate the impact of lower social class on these race findings. Indians have also been found to score more externally than whites (Tyler & Holsinger, 1975; Hawk and & Parsons, 1976).

<u>Gender:</u> It is interesting that males and females do not differ in any consistent fashion in mean response to the CNSIE regardless of age or race (see Tables 6, 7, and 8).

<u>Achievement</u>: There are a number of studies that support the theoretical assumption that internality is associated with academic achievement as well as to those behaviors associated with academic achievement, such as persistence.

Nowicki and Strickland (1973) reported significant correlations between internality and higher academic achievement for children from grades three through 12 (see Table 9 and also Wyner & Blanchard, 1976). Mount (1975) in a study of helplessness and locus of control orientation reported correlations ranging from -.35 to -.47 depending on the type of academic achievement measure (<u>n</u>=50, p<.01). The predicted relationship between internality and greater academic achievement holds not only for American children but also for Danish children (Afedo & Fonsbol, 1975), Hungarian children (Rupp & Nowicki, 1976), and Mexican Americans (Cervantes, 1976a, b).

In terms of persistence, as would be expected, internals persisted longer on tasks than did externals (Gordon, 1976; Short, 1976; Bloodworth, 1975; Weiner, 1975; and Waters, 1970). Other researchers have reported that internality is related to competence behaviors (see Strickland, 1975).

Constitutional: In addition to demographic and achievement data another source of data useful in assessing the validity of the CNSIE comes from the area of constitutional differences. For instance, it makes theoretical sense to assume that those with handicaps of some sort will be more external than those individuals not so affected. In fact, this is the case in the following areas: mental retardation (Zaman & Gordon, 1976); cerebral palsy (Eggland, 1973); dyslexia (Hill, 1971); physical handicaps (Sylvan, Branes & Crim, 1974); chronic illness (Tavormina, Kastner, Slater & Watt, 1975); deafness (Young, 1974); emotional disturbances (Kendall, Finch, Little, & Ollendick, 1976); blindness (Davidson, 1975) and delinquency (Kendall, Finch, Little & Ollendick, 1976; Hendrix, 1975; Elenewski, 1974; Fenhagen, 1973; Stein, 1974; Ludwisgsen & Haskins, 1976).

There is data to show that psychological maladjustment is related to externality (McClanahan, 1975). The more massive confirmation of this fact were results from a year long study of all institutionalized children in the state of Georgia (Thomas, 1974). A somewhat shortened form of the CNSIE was given to 2000 institutionalized and 1500 noninstitutionalized control subjects. Thomas found among other things that those who were institutionalized were more external than their yoked controls.

Stone (1976) found that externals reported themselves to be more vulnerable to sickness and accidents, and Brantley (1976) reported that cleft-palate children were more external than normal children. Lastly, Loney (1976) showed the hyperkinetic/aggressive boys were more external than comparably ages youngsters.

<u>Personality</u>: Locus of control has been related to other personality variables in a theoretically consistent fashion. For example, internality has been related to higher self-esteem (Gordon & Wilbur, 1973; Gordon, 1976), higher moral development (Grotsky, 1973), leadership (Hawk & Parsons, 1975) shorter delay of gratification (Strickland, 1973) lower anxiety (Kendall, Keardorff, Finch & Graham, 1976), and less interpersonal distance (Duke & Nowicki, 1974; Morris, 1975; Ude, 1975).

Lastly, it appears that parent behaviors such as consistency, warmth and nurturance were associated with internality (Nowicki & Segal, 1972; Wichern & Nowicki, 1975; Wichern Gordon & Mowicki, 1976; Gordon, 1976).

Scoring Key (Items are keyed in the external direction)

- 1. YES
- 2. NO
- 3. YES
- 4. NO
- 5. YES
- 6. NO
- 7. YES
- 8. YES
- 9. NO
- 10. YES
- 11. YES
- 12. YES
- 13. NO
- 14. YES
- 15. YES
- 16. NO
- 17. YES 18. YES
- 19. YES
- 20. NO 21. YES
- 22. NO
- 23. YES
- 24. YES
- 25. NO
- 26. NO 27. YES
- 28. NO
- 29. YES
- 30. NO
- 31. YES
- 32. NO
- 33. YES
- 34. NO
- 35. YES 36. YES 37. YES

- 38. NO
- 39. YES
- 40. NO