

Research & Development

This section outlines the stages involved in the development of the Hope Scale (Leutenberg & Liptak, 2016). The research & development section includes guidelines for development and norm development and testing.

Guidelines for Development

The Hope Scale was developed to fill the need for a quick, reliable instrument to help people assess their current level of hope. The assessment consists of three scales, each containing six items that explore the respondent's hopeful attitude, goal orientation, and expectations about future success. The Hope Scale also provides teachers and therapists with information that they can use to help people start their path to greater levels of hope.

The Hope Scale was administered to people from a variety of cultural backgrounds. Table 1 shows the results of this study.

Table 1: Means and Standard Deviations (N = 72)		
Scales	Mean	SD
Optimistic Attitude	9.85	1.08
Goal Orientation	9.74	1.31
Positive Outcomes	9.78	1.19

Experimental Pre-test/Post-test Design Research

The basic premise behind the pre-test/post-test design involves administering The Hope Scale before the “hope” treatment, followed by the administration of The Hope Scale again. Pre-test/post-test designs are employed in both experimental and quasi-experimental research and can be used with or without control groups. For example, quasi-experimental pre-test/post-test designs may or may not include control groups, whereas experimental pre-test/post-test designs must include control groups. Furthermore, despite the versatility of these designs, they still have limitations, including threats to internal validity. Although such threats are of particular concern for quasi-experimental designs, experimental designs also contain threats to internal validity.

The Hope Scale was used in three separate studies:

Study 1

The Hope Scale was administered as a pre-test and a post-test to a group of teens who then had the training to enhance their level of hope. These teens were exposed to treatment materials related to the Hierarchy of Hope (www.hierarchyofhope.com) for approximately three weeks. The researcher used a 95% Confidence Interval of the Difference. Table 2 shows the results of this study. As can be seen from Table 2, the scores were statistically significantly different at the 99% Confidence Level.

Table 2: A Study of Hope Training (N = 21)			
Pairs	Degree of Freedom	One-Sided P	Two-Sided P
OA-OA2	20	<.001	<.001
GO-GO2	20	<.001	<.001
PO-PO2	20	<.001	<.001

Differences in Scores:

As shown in Table 3, teens' scores on each of the three scales were statistically significantly better from the first administration of the Hope Scale to the second administration.

Table 3: Paired Sample Statistics		
Scale 1: Optimistic Attitude	Scale 2: Goal Orientation	Scale 3: Positive Outcomes
OA Pre-Test = 8.95	GO Pre-Test = 9.09	PO Pre-Test = 9.10
OA Post-Test = 10.72	GO Post-Test = 10.67	PO Post-Test = 10.43

Study 2

The Hope Scale was then administered to a second group of teens to determine the reproducibility of the results. The researcher used a 95% Confidence Interval of the Difference. Table 4 shows the results of this study. As can be seen from Table 4, the scores from this group of teens were also statistically significant.

Table 4: A Study of Hope Training (N = 15)

Pairs	Degree of Freedom	One-Sided P	Two-Sided P
OPT-OPT2	14	<.001	<.001
Goals-Goals2	14	<.002	<.004
Pos-Pos2	14	<.004	<.007

Differences in Scores:

As shown in Table 5, teens' scores on each of the three scales were statistically significantly better from the first administration of the Hope Scale to the second administration.

Table 5: Paired Sample Statistics

Scale 1: Optimistic Attitude	Scale 2: Goal Orientation	Scale 3: Positive Outcomes
OA Pre-Test = 9.20	GO Pre-Test = 8.87	PO Pre-Test = 9.20
OA Post-Test = 10.53	GO Post-Test = 10.33	PO Post-Test = 10.40

Study 3

The Hope Scale was administered as a pre-test and a post-test to a group of unemployed adults who then had the training to enhance their level of hope. These adults were exposed to treatment materials related to the Hierarchy of Hope (www.hierarchyofhope.com) for approximately three weeks. The researcher used a 95% Confidence Interval of the Difference. Table 6 shows the results of this study. As can be seen from Table 6, the scores were statistically significantly different at the 99% Confidence Level.

Table 6: A Study of Hope Training (N = 35)

Pairs	Degree of Freedom	One-Sided P	Two-Sided P
OA-OA2 Adults	34	<.001	<.001
GO-GO2 Adults	34	<.001	<.001
PO-PO2 Adults	34	<.001	<.001

Differences in Scores:

As shown in Table 7, adults' scores on each of the three scales were statistically significantly better from the first administration of the Hope Scale to the second administration.

Table 7: Paired Sample Statistics for Adults		
Scale 1: Optimistic Attitude	Scale 2: Goal Orientation	Scale 3: Positive Outcomes
OA Pre-Test = 9.49	GO Pre-Test = 9.62	PO Pre-Test = 9.57
OA Post-Test = 10.31	GO Post-Test = 10.60	PO Post-Test = 10.63