

# Constructing the Validity and Reliability of the General Self-Efficacy Questionnaire (GSE-Climb) for Climbing Athletes in the Speed World Record Category

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**Abstracts** This study aims to develop and report the General Self-Efficacy for Speed Climbers (GSE-Climb), as well as to conduct the validity and reliability of the General Self-Efficacy (GSE-Climb) questionnaire. GSE-Climb is used to assess the SE of climbing athletes in the World Speed Record category. This study used seven experts with details, 2 experts in the field of pure psychology, 1 expert in sports psychology, 1 head Indonesian national coach, 2 Indonesian national coaches, and 1 lecturer at the Faculty of sports science. This research has four stages (analysis, design, development, and implementation). The first step was to carry out documentary research to build an instrument to be developed, uploading documents to review the development context. This research developed the GSE-Scale instrument which was commonly used to measure SE. It can then be used to measure the SE of climbing athletes, which was named GSE-Climb. In the second step, the instrument was made; after the GSE-Climb was completed, the validity of the content was determined using 7 experts with various qualifications. The evaluation included the level of understanding, the relevance of the

words, and the truth of the statements with ratings 1 to 5. Expertise data was collected using the Delphi technique, while the validity was calculated with the Aiken V formula. The third step, to obtain internal validity, used 30 men climbing athletes and calculated the correlation of the product-moment correlation. In the fourth step, inter-rater reliability was tested using Cron Bach Alpha analysis. The results of the calculations indicated that the total content validity value was 0.899, while reliability with an inter-rater value was 0.875. Based on Aiken's V validity (content validity), external validity, and the GSE-Climb Reliability Test to measure the self-efficacy of climbing athletes in the Speed World Record category have been proven to have good evaluation results. This may indicate that the GSE can be used to measure the SE of climbing athletes in the WR speed category for various needs.

**Keywords** Sports Climbing, Self-Efficacy, Validity, Reliability

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## 1. Introduction

Sport climbing emphasizes physiological and psychological aspects [1]–[4]. The need for psychological aspects of sport climbing includes elements of climbing style, height, fall anxiety, climbing as seen by spectators, and competition conditions [5]–[7]. This condition must be anticipated by a climber to achieve good climbing performance or complete a climbing route [3], [7], [8]. Anticipation of anxiety, high arousal and motivation will help the trainer to distinguish highly visible individual psychological abilities, which greatly affects climbing results [1], [9]. The climber needs effective management in achieving a climbing route to achieve a good time and not slip while climbing, so this does not only involve physical aspects but also psychological aspects [10], [11]. In order to anticipate this, the climber's psychological abilities must be increased, such as concentration, self-efficacy, self-confidence, goal setting, imagery, etc. [7], [12]–[14].

Based on the various psychological skills above, the dominant ability for climbing athletes in the speed category is self-efficacy (SE). Self-Efficacy (SE) is the most important sub theory of cognitive theory [15], [16]. Self-efficacy has a close relationship with athlete performance, but the extent to which this influence is based on the clustering of SE levels, particularly in sport climbing, has not been studied in detail, for example in the speed category world record (WR) [17]. Those with high SE will perform better [18], [19]. Indeed, athletes with high SE believe in themselves and do their best if something gets in their way [20]. They also like challenges and enjoy all the challenges that exist both in training and in games. On the other hand, athletes who have low SE, will avoid difficult tasks, put in little effort, and be less enthusiastic in every training session that requires hard work to improve performance, tasks, or exercises. Heavy will be perceived as a threat by them [18], [21], [22].

This is contrary to previous studies which indicated that there were no significant differences between high and low SE in climbing abilities. In fact, this was due to study subject factors, so the difference only applies to athletes who participated in sports climbing training, not novice climbers [3], [17]. So, these problems have been answered by our research before with national climbing athletes in the speed category who have high self-efficacy and better abilities than those who do not [3]. Thus, a new problem was found to be solved, namely how to measure SE specifically for category speed climbing. Thus, the existence of this special instrument can help coaches to obtain high-accuracy of data regarding the information

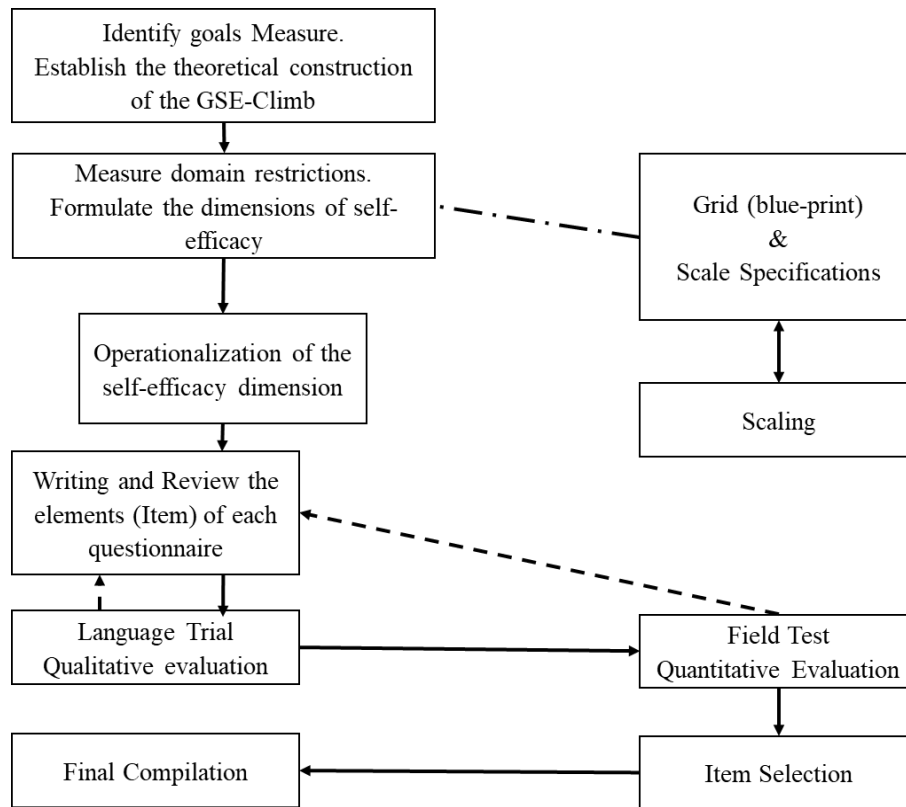
about the SE abilities of each athlete to develop new strategies. Thus, the coach has the instrument to search for talents, improve performance, divide into groups, and even organize mental training programs to improve the SE of the athlete.

So far, the instrument for measuring SE has been found to generally measure SE, namely the General Self-Efficacy (GSE) Scale. The GSE is an instrument in the form of a questionnaire used to measure the level of SE of a person in general. In this study, the researchers will modify this instrument so that this instrument is specifically aimed at measuring the confidence level of climbing athletes in the WR speed category. GSE validity is correlated with emotion, optimism, and performance satisfaction. To specialize the GSE instrument to measure the self-confidence of WR speed climbing athletes, the self-efficacy dimension is used, namely level (magnitude), strength, and generality [18].

Thus, the objective of this research is to develop and manufacture the GSE-Climb, which specifically measures the SE of climbing athletes in the WR speed climbing category.

## 2. Methods

This study comprises 4 modified stages (Analysis, Design, Development, and Implementation) [23]. The first step was to carry out documentary research to build an instrument to be developed. Theoretically, the authors adopted the GSE instrument [24]. This research developed the GSE-Climb instrument which was commonly used to measure the SE; the GSE was modified with dimensions (original general, magnitude, strength, and generality) that were closely related to the speed category of climbing. In the second step, the instrument was made; after the GSE-Climb was completed, the validity of the content was determined using 7 experts with various qualifications. The evaluation included the level of understanding, the relevance of the words, and the truth of statements with ratings 1 to 5. The third step, to obtain internal validity, used 30 climbing athletes, male gender, and calculated the product-moment correlation. In the fourth step, inter-rater reliability was tested using Cron Bach Alpha analysis. [25]. Expert assessment data was collected using the Delphi technique [26], while validity was calculated with the Aiken V formula [27]. For clarity, the research stages can be seen in Figure 1.



**Figure 1.** Development Stages of the GSE-Climb Questionnaire for measure SE of Speed WR Climbing Athletes

In addition, the selected dimensions are poured into the questionnaire grid. The questionnaire grid is provided with items and a scale as a reference for making an assessment that will be completed by the respondent.

### 2.1. Validity Technique

Items that have been created and developed will be evaluated grammatically and substantially against predetermined dimensions of self-efficacy. In this case, the evaluation of the items was carried out by the expert judgment of up to 7 experts with details, 2 experts in the field of pure psychology, 1 expert in sports psychology, and 1 head coach Indonesian national and 2 Indonesian national coaches. The scale used to measure the self-confidence of athletes in this study was a Likert scale (Mueller, 1992). The response scale used was HTP = rarely, SJ = very rarely, KD = sometimes, SS = very often, and HSL = almost always with a value from 1 to 5. All items are formulated in a favorable sense. Even so, experts perform assessments to increase the sharpness, strength, and accuracy of the instrument's elements in terms of measuring what needs to be measured correctly against the developed instrument. Expert data collection uses the Delphi technique using a mixed method approach (qualitative and quantitative) [26], [28], [29].

Then, the expert judgment results were calculated using Aiken's V formula to determine content validity [27]. With the formula:

$$V = \sum s / [n (C-1)]$$

$$S = r - lo$$

Lo = lowest value

C = highest value

R = numbers are given by the rater

In addition, the instruments that have been prepared based on the instrument grid (blue-print) (Figure 1), will then be field tested (field test) to obtain the score results for each respondent. After each respondent's score results, an item analysis was then performed to find out if each item met the psychometric requirements to become an instrument with specific goals and measurements using product moment analysis Pearson correlation. The results of the item analysis are used as the basis for selecting each item using the product moment correlation. Items that do not meet the psychometric requirements will be removed or corrected.

The test of the questionnaire was carried out for climbing athletes of the FPTI speed category, in Indonesia, via Google Form. The data collected conform to the sampling criteria specified in this study. The number of respondents to the test of the GSE instrument, which was taken was 30 participants. More clearly, the validity and reliability stages of the GSE speed WR instrument can be seen in **Table 5** in appendix 3.

The final step is the compilation of the elements, i.e. the final version of the element selected to be used as an instrument. The final format of the instrument which has been properly assembled is ready to be used as an

instrument and is attached as an attachment to this paper SEE **Table 4** in appendix 1.

## 2.2. External Validity and Reliability Technique

Before performing the external validity test and reliability test, field trials were also performed with participants n=30 Men of National Climbing Athletes. SE data results were related to the Correlation Product Moment. The results of the validity of the field tests were followed by the determination of the reliability of the instrument using the statistical test Cronbach Alpha [25]. Self-Efficacy (SE) data scores were analyzed by SPSS application, 25 version.

## 3. Results

### 3.1. Validity

The results of this study are related to the GSE-Climb design model. Prior to validation, the GSE-Climb questionnaire grid for WR Speed climbing athletes was created (**Table 4**), then a GSE-Climb questionnaire was created (**Appendix 2**). So what is the value of the validity and reliability of the developed questionnaire? For this reason, the results of the analysis of the validity value calculation using Aiken's V formula can be viewed in **Table 1**.

Based on the results of Aiken's analysis, the lowest value of the coefficient is 0.821, while the highest value is 0.892. In addition, each item as a whole obtained an average value (0.899) SEE **Table 1**. To reinforce and test the instrument with n=30 national sport climbing athlete subjects, after external validity, it also showed a correlation value with the timing of the product which is at the 5% significance level, SEE **Table 5**. This indicates that all items have a high level of content validation. Thus, the GSE-Climb questionnaire can be used to measure the SE of climbers or in other words is depending on what needs to be measured.

### 3.2. Reliability

After obtaining empirical validation results from the

GSE speed WR questionnaire, these results were directly tested for reliability using Cronbach's Alpha, via SPSS 25 version application. For clarity, inter-rater reliability can be viewed in the following **Table 2 & 3**. If the reliability value obtained is greater than 0.6, the instrument can be considered reliable, since the minimum Cronbach's Alpha value is 0.6 [25].

**Table 1.** GSE-Climb WR Speed Questionnaire Content Validity Analysis Results.

Items	Aiken's V
1	0.821
2	0.892
3	0.892
4	0.892
5	0.892
6	0.892
7	0.892
8	0.892
9	0.892
10	0.892
11	0.892
12	0.892
13	0.892
14	0.892
15	0.892
16	0.892
17	0.892
18	0.892
19	0.892
20	0.892
Average	0.889

**Table 2.** GSE-Climb Speed WR Reliability Test Results.

Cronbach's Alpha	N of Items
0.875	20

**Table 3.** Details of the GSE-Climb speed WR speed Inter-Rater reliability test results for each item

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
i1	66.467	112.740	0.569	0.873
i2	66.367	117.482	0.532	0.874
i3	66.367	116.654	0.635	0.872
i4	66.400	118.662	0.518	0.875
i5	66.300	117.183	0.531	0.874
i6	66.633	115.344	0.644	0.871
i7	66.333	117.402	0.632	0.872
i8	66.467	119.085	0.406	0.878
i9	66.733	116.478	0.383	0.881
i10	66.400	118.938	0.566	0.874
i11	66.600	117.834	0.403	0.879
i12	66.433	118.047	0.456	0.877
i13	66.600	117.903	0.400	0.879
i14	66.567	114.668	0.521	0.875
i15	66.600	119.214	0.323	0.882
i16	66.600	119.352	0.365	0.880
i17	66.567	114.737	0.616	0.871
i18	66.533	116.257	0.454	0.877
i19	66.400	116.455	0.610	0.872
i20	66.633	119.206	0.465	0.876

## 4. Discussion

Interest in the role of SE in sports performance has been extensively researched in some aspects of sports psychology research. An instrument for measuring SE in sports activities has already been developed but not yet in climbing [30]. The self-efficacy questionnaire in this study was compiled by adopting the General Self-Efficacy Scale (GSE). This research has an element of high success because, in addition to validating experts through content validity, it has also been tested by performing external validity so that reliability values can be obtained. The developed GSE-Climb questionnaire was found to have a high level of validity and high reliability, so it was possible to use it as an instrument to measure SE. This research is the first to develop a GSE questionnaire to measure SE WR speed in climbing.

Past research related to GSE has indeed been extensively studied and rendered its validity [31]–[33]. However, there is no specific questionnaire to measure the SE of sport climbing athletes in the speed category, but for novice athletes. Research related to SE has been done, but there is nothing specific for sport climbing athletes' WR speed Category. Self-efficacy (SE) has an important function in

extreme sports, especially sports climbing, especially for the speed category. In SE theory, someone will tend to do what they believe can or cannot be done [34], [35]. In addition, SE perception helps shape individual efforts, and affective experiences, especially high-intensity physical activities [19]. This is consistent with climbing in the speed category, especially with vertical climbing conditions. It requires a high SE. In terms of efforts to increase SE, it is necessary to precisely measure SE.

The limit of this study is the generalization of the sample which is still lacking. This study always uses the highest score among the testee scores and there is no specific categorization that includes gender and age. Further research is recommended to examine validation and reliability with larger numbers of samples and to determine measurement standards. These results should also be replicated with a larger study sample. This study focuses only on content, external validity, and reliability testing on male participants, further research is needed on female or random subjects.

However, the advantage of this research is that it went through a process of discussion with a former world champion athlete, as well as a national coach, and evaluated the instruments developed based on real experience. Future

research should add a large-scale participant to increase the validity and reliability value of the GSE-Climb questionnaire. The benefit/accessibility of this research is that it can be used by climbing coaches as a basis for developing strategies to increase athlete ES. For sports psychologists, this can help conduct further research and serve as the basis for determining mental training programs to hone the psychological state of athletes specifically in SE.

## 5. Conclusions

Based on the results of the research conducted, it was found that the GSE-Climb Questionnaire for measuring the SE of climbing athletes in the WR speed category was found to be very valid and reliable. This research can be used by the climbing federation, coaches, sports

psychologists, and researchers who use it as a measurement tool questionnaire to measure the SE of sport climbing athletes specifically in the speed class.

## Acknowledgements

We thank *Federasi Panjat Tebing Indonesia, Daerah Istimewa Yogyakarta (FPTI DIY)*, and Central Java for their willingness to contribute, in particular by allowing national training athletes to become participants. Furthermore, we would like to thank the validators and especially Aries Susanti Rahayu a former IFSC World Cup World Champion athlete and world record holder in Xiemien, China.

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## Appendix 1. GSE-Climb Questionnaire Grid for Climbing Athletes WR Speed

**Table 4.** GSE-Climb Questionnaire Grid for Climbing Athletes WR Speed.

Variable	Dimension	Items	Question Item Numbers	Score
Self-Efficacy	Magnitude	As a sports climbing athlete, I can always solve tough problems if I try hard enough.	1	
		I'm confident with the starting position I'm taking.	15	
		I can always do a Step up Dyno if I have to.	16	
		I am confident and I can increase my speed in climbing.	17	
		I can do the Tomoa Skip while climbing.	12	
		I always believed and managed to complete the climbing route without any difficulty.	13	
		I'm always sure to win when I face all the opponents I face.	14	
	Strength	If someone opposes me during training or competition, I will find ways to get what I want.	3	
		I'm sure I can maintain my speed when I press the bell to stop the ascent.	18	
		I can solve problems in training and competition if I really put in the effort.	2	
		I can stay calm when I encounter adversity during training or competition because I can rely on my ability to overcome problems.	4	
		If I encounter difficulties during training or competition, I can usually find a solution.	19	
		I am resourceful, so I know how to handle unforeseen situations during training or competitions.	11	
		I am sure to have the best time and win at the optimal speed that I do both in competition and in practice	9	
	Generality	I still believe that I will keep the confidence to be able to win the match, regardless of my opponent.	10	
		In training or competition, it's easy for me to stick to training or competition goals and achieve those goals.	5	
		I am confident that I can deal effectively with unexpected events in training or competition.	8	
		I'm always happy to be at a speed climbing site to practice or compete in all pressure conditions.	7	
		I still believe in the climbing gear I use to complete the climbing route as quickly as possible.	20	
	I'm confident in my overall climbing technique to get the best performance.	6		

## Appendix 2. Self-Efficacy Questionnaire Climbing General Self-Efficacy (GSE-Climb) Climbing Athletes Category World Record (WR) Speed

### Self-Efficacy Questionnaire Climbing General Self-Efficacy (GSE-Climb) Climbing Athletes Category World Record (WR) Speed

Name :  
Age :  
Gender :  
Kind of training :

No.	Items	Response				
		HTP	SJ	KD	SS	HSL
1	As a sports climbing athlete, I can always solve tough problems if I try hard enough.					
2	I can solve problems in training and competition if I put in the effort.					
3	If someone opposes me during training or competition, I will find ways to get what I want.					
4	I can stay calm when I encounter adversity during training or competition because I can rely on my ability to overcome problems.					
5	In training or competition, it's easy for me to stick to training or competition goals and achieve those goals.					
6	I'm confident in my overall climbing technique to get the best performance.					
7	I'm always happy to be at a speed climbing site to practice or compete in all pressure conditions.					
8	I am confident that I can deal effectively with unexpected events in training or competition.					
9	I am sure to have the best time and win at the optimal speed that I do both in competition and in practice.					
10	I still believe that I will keep the confidence to be able to win the match, regardless of my opponent.					
11	I am resourceful, so I know how to handle unforeseen situations during training or competitions.					
12	I can do the Tomoa Skip while climbing.					
13	I always believed and managed to complete the climbing route without any difficulty.					
14	I'm always sure to win when I face all the opponents I face.					
15	I'm confident with the starting position I'm taking.					
16	I can always do a Step up Dyno if I have to.					
17	I am confident and I can increase my speed up in climbing.					
18	I'm sure I can maintain my speed when I press the bell to stop the ascent.					
19	If I encounter difficulties during training or competition, I can usually find a solution.					
20	I still believe in the climbing gear I use to complete the climbing route as quickly as possible.					

Information:

- Information: HTP = rarely, SJ = Very rarely, KD = sometimes, SS = very often, HSL = almost always.
- Respond to each statement based on what you have experienced and felt so far by checking ( √ ) in the alternative rating column above.
- The maximum working time is 10 minutes.



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Table 5 continued

i5			i4			i3		
N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation
30	0	.674**	30	0.139	0.277	30	0.001	.592**
30	0.163	0.261	30	0.004	.504**	30	0.059	0.348
30	0	.626**	30	0.092	0.313	30		1
30	0.224	0.229	30		1	30	0.092	0.313
30		1	30	0.224	0.229	30	0	.626**
30	0.028	.402*	30	0.436	0.148	30	0.007	.482**
30	0.231	0.226	30	0.057	0.352	30	0.001	.573**
30	0.193	0.244	30	0.474	0.136	30	0.088	0.316
30	0.217	0.232	30	0.897	-0.025	30	0.991	-0.002
30	0.006	.489**	30	0.018	.429*	30	0	.716**
30	0.438	0.147	30	0	.598**	30	0.792	0.05
30	0.244	0.219	30	0	.713**	30	0.073	0.332
30	0.044	.371*	30	0.137	0.278	30	0.792	0.05
30	0.067	0.339	30	0.56	0.111	30	0.101	0.305
30	0.565	0.109	30	0.159	0.264	30	0.43	0.15
30	0.804	-0.047	30	0.014	.445*	30	0.017	.432*
30	0.018	.428*	30	0.966	0.008	30	0.017	.434*
30	0.039	.379*	30	0.401	0.159	30	0.006	.491**
30	0.468	0.138	30	0.023	.415*	30	0.001	.571**
30	0.252	0.216	30	0.07	0.335	30	0.223	0.229
30	0.001	.590**	30	0.001	.572**	30	0	.678**

Table 5 continued

i8			i7			i6		
N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation
30	0.339	0.181	30	0.077	0.328	30	0.002	.550**
30	0.343	0.179	30	0.116	0.293	30	0.014	.442*
30	0.088	0.316	30	0.001	.573**	30	0.007	.482**
30	0.474	0.136	30	0.057	0.352	30	0.436	0.148
30	0.193	0.244	30	0.231	0.226	30	0.028	.402*
30	0.826	0.042	30	0.097	0.309	30		1
30	0.093	0.313	30		1	30	0.097	0.309
30		1	30	0.093	0.313	30	0.826	0.042
30	0.134	0.28	30	0.007	.481**	30	0.064	0.342
30	0.426	0.151	30	0	.614**	30	0.097	0.309
30	0.085	0.32	30	0.423	0.152	30	0.331	0.184
30	0.068	0.338	30	0.127	0.285	30	0.732	0.065
30	0.949	-0.012	30	0.842	0.038	30	0.007	.479**
30	0.008	.472**	30	0.012	.455*	30	0.22	0.231
30	0.013	.448*	30	0.122	0.288	30	0.793	0.05
30	0.814	-0.045	30	0	.643**	30	0.027	.403*
30	0.014	.444*	30	0.092	0.313	30	0	.821**
30	0.397	-0.16	30	0.085	0.319	30	0	.728**
30	0.029	.398*	30	0.017	.432*	30	0.008	.474**
30	0.057	0.351	30	0.044	.370*	30	0.119	0.291
30	0.007	.479**	30	0	.673**	30	0	.690**

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Table 5 continued

iii			iio			i9		
N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation
30	0.092	0.313	30	0.513	0.124	30	0.027	.402*
30	0.065	0.341	30	0.046	.367*	30	0.992	-0.002
30	0.792	0.05	30	0	.716**	30	0.991	-0.002
30	0	.598**	30	0.018	.429*	30	0.897	-0.025
30	0.438	0.147	30	0.006	.489**	30	0.217	0.232
30	0.331	0.184	30	0.097	0.309	30	0.064	0.342
30	0.423	0.152	30	0	.614**	30	0.007	.481**
30	0.085	0.32	30	0.426	0.151	30	0.134	0.28
30	0.181	0.251	30	0.83	0.041	30		1
30	0.803	-0.047	30		1	30	0.83	0.041
30		1	30	0.803	-0.047	30	0.181	0.251
30	0.011	.460*	30	0.003	.525**	30	0.833	-0.04
30	0.242	0.22	30	0.06	0.348	30	0.478	0.135
30	0.348	0.178	30	0.394	0.161	30	0.021	.418*
30	0.331	0.184	30	0.173	0.255	30	0.251	0.216
30	0.215	0.233	30	0.012	.452*	30	0.251	0.216
30	0.275	0.206	30	0.323	0.187	30	0.007	.484**
30	0.441	-0.146	30	0.007	.484**	30	0.613	0.096
30	0.108	0.3	30	0	.661**	30	0.975	0.006
30	0.017	.431*	30	0.711	0.07	30	0.004	.504**
30	0.007	.485**	30	0	.611**	30	0.007	.479**

Table 5 continued

i14			i13			i12		
N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation
30	0.01	.461*	30	0.734	0.065	30	0.562	0.11
30	0.041	.375*	30	0.015	.440*	30	0.102	0.304
30	0.101	0.305	30	0.792	0.05	30	0.073	0.332
30	0.56	0.111	30	0.137	0.278	30	0	.713**
30	0.067	0.339	30	0.044	.371*	30	0.244	0.219
30	0.22	0.231	30	0.007	.479**	30	0.732	0.065
30	0.012	.455*	30	0.842	0.038	30	0.127	0.285
30	0.008	.472**	30	0.949	-0.012	30	0.068	0.338
30	0.021	.418*	30	0.478	0.135	30	0.833	-0.04
30	0.394	0.161	30	0.06	0.348	30	0.003	.525**
30	0.348	0.178	30	0.242	0.22	30	0.011	.460*
30	0.382	0.166	30	0.186	0.248	30		1
30	0.05	0.361	30		1	30	0.186	0.248
30		1	30	0.05	0.361	30	0.382	0.166
30	0.064	0.343	30	0.872	0.031	30	0.005	.494**
30	0.448	-0.144	30	0.383	-0.165	30	0.161	0.263
30	0.032	.393*	30	0.112	0.297	30	0.405	0.158
30	0.179	0.252	30	0	.611**	30	0.651	-0.086
30	0.363	0.172	30	0.072	0.334	30	0.001	.567**
30	0.015	.440*	30	0.165	0.26	30	0.877	0.03
30	0.001	.594**	30	0.007	.482**	30	0.003	.525**

Constructing the Validity and Reliability of the General Self-Efficacy Questionnaire (GSE-Climb)  
for Climbing Athletes in the Speed World Record Category

Table 5 continued

i17			i16			i15		
N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation
30	0.001	.562**	30	0.359	0.174	30	0.567	0.109
30	0.05	0.361	30	0.42	0.153	30	0.948	0.012
30	0.017	.434*	30	0.017	.432*	30	0.43	0.15
30	0.966	0.008	30	0.014	.445*	30	0.159	0.264
30	0.018	.428*	30	0.804	-0.047	30	0.565	0.109
30	0	.821**	30	0.027	.403*	30	0.793	0.05
30	0.092	0.313	30	0	.643**	30	0.122	0.288
30	0.014	.444*	30	0.814	-0.045	30	0.013	.448*
30	0.007	.484**	30	0.251	0.216	30	0.251	0.216
30	0.323	0.187	30	0.012	.452*	30	0.173	0.255
30	0.275	0.206	30	0.215	0.233	30	0.331	0.184
30	0.405	0.158	30	0.161	0.263	30	0.005	.494**
30	0.112	0.297	30	0.383	-0.165	30	0.872	0.031
30	0.032	.393*	30	0.448	-0.144	30	0.064	0.343
30	0.566	0.109	30	0.14	0.276	30		1
30	0.417	0.154	30		1	30	0.14	0.276
30		1	30	0.417	0.154	30	0.566	0.109
30	0.058	0.351	30	0.124	0.287	30	0.959	0.01
30	0.018	.429*	30	0.019	.425*	30	0.088	0.317
30	0.088	0.317	30	0.621	0.094	30	0.451	-0.143
30	0	.670**	30	0.014	.445*	30	0.023	.415*

Table 5 continued

i20			i19			i18		
N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation	N	Sig. (2-tailed)	Pearson Correlation
30	0.022	.416*	30	0.691	0.076	30	0.057	0.351
30	0.115	0.294	30	0.003	.524**	30	0.054	0.355
30	0.223	0.229	30	0.001	.571**	30	0.006	.491**
30	0.07	0.335	30	0.023	.415*	30	0.401	0.159
30	0.252	0.216	30	0.468	0.138	30	0.039	.379*
30	0.119	0.291	30	0.008	.474**	30	0	.728**
30	0.044	.370*	30	0.017	.432*	30	0.085	0.319
30	0.057	0.351	30	0.029	.398*	30	0.397	-0.16
30	0.004	.504**	30	0.975	0.006	30	0.613	0.096
30	0.711	0.07	30	0	.661**	30	0.007	.484**
30	0.017	.431*	30	0.108	0.3	30	0.441	-0.146
30	0.877	0.03	30	0.001	.567**	30	0.651	-0.086
30	0.165	0.26	30	0.072	0.334	30	0	.611**
30	0.015	.440*	30	0.363	0.172	30	0.179	0.252
30	0.451	-0.143	30	0.088	0.317	30	0.959	0.01
30	0.621	0.094	30	0.019	.425*	30	0.124	0.287
30	0.088	0.317	30	0.018	.429*	30	0.058	0.351
30	0.225	0.228	30	0.037	.383*	30		1
30	0.437	0.147	30		1	30	0.037	.383*
30		1	30	0.437	0.147	30	0.225	0.228
30	0.003	.525**	30	0	.658**	30	0.002	.533**

Constructing the Validity and Reliability of the General Self-Efficacy Questionnaire (GSE-Climb)  
for Climbing Athletes in the Speed World Record Category

Table 5 continued

VAR00002	N	Sig. (2-tailed)	Pearson Correlation
	30	0	.640**
	30	0.001	.589**
	30	0	.678**
	30	0.001	.572**
	30	0.001	.590**
	30	0	.690**
	30	0	.673**
	30	0.007	.479**
	30	0.007	.479**
	30	0	.611**
	30	0.007	.485**
	30	0.003	.525**
	30	0.007	.482**
	30	0.001	.594**
	30	0.023	.415*
	30	0.014	.445*
	30	0	.670**
	30	0.002	.533**
	30	0	.658**
	30	0.003	.525**
	30		1

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