Computer Programming Self-Efficacy Scale for Middle School Students

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31 Items
1 Dimension

I24: I can enable the program to produce accurate results.
I6: I can solve the problem via different solutions.
I16: I know how to use the programming variables.
I22: I can operate the program I have developed.
I27: I can record the program I have developed.
I31: I can explain my idea of software project step by step.
I30: Among the multiple software projects, I select the one that is the fittest for the criterion.
I5: I select the fittest knowledge for solving the programming problem.
I4: I investigate the knowledge that is required for solving the programming problem.
I10: Among various steps of solution, I select the fittest one for the solution to the programming problem.
I7: I can determine the fittest solution to a problem.
I25: I can make changes on the program.
I15: I can make preparations (like determining the variables and processes) required for solving the programming problem.
I3: I can make an interpretation regarding whether or not a programming problem could be solved.
I8: I can suggest different solutions in order to solve the programming problems.
I26: I can correct the mistakes about the coding in the program.
I9: I determine the solution to the programming problem step by step.
I20: I know the stages of programming.
I29: I can explain the process of developing a software project.
I17: When necessary, I can change the order of the processes designed for solving a programming problem.
I28: I can share my program with other people via the internet.
I23: I can enable the perfect functioning of the program.
I14: I can discuss the different steps being developed for solving the programming problem.
I13: I can correct a programming problem whose solution steps are given wrong.
I21: I know where to write the program codes.
I12: I share the steps of solution to the programming problem with my friends.
I2: I can solve complex programming problems by separating them into smaller sub-problems.
I1: I can understand whether a problem is a programming problem or not.
I19: I know what the operators +, -, *, /, >,<, = mean in a programming.
I18: I can use the cycle instead of repeating instructions.
I11: I can show the steps of solution by drawing figures on paper

5-point Likert scale (“strongly agree”, “agree”, “undecided”, “disagree”, and “strongly disagree”)
Cronbachs α: .91