Attractive, Regularly-Implementable Universal Prevention Education Program for Health and Adjustment in Schools

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Abstract

This paper describes a new innovative universal prevention education program for children health and adjustment in schools, named “TOP SELF” (Trial Of Prevention School Education for Life and Friendship). Herein, after outlining the basic features of this program, the hierarchical purpose structure is described, with emphasis on its basis in scientific evidence. Next, several crucial features of the program are discussed in light of data and theories in the domain of psychology and brain science. Thereafter, standard educational methods that are characterized by animated stories and enjoyable activities that capture the attention of students are described, along with evaluation methods. Finally, future endeavors to increase the implementation of this education program are discussed.

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1. What we need to do in the fact of prevalent health/adjustment problems in children in the modern world

In recent years, children have been suffering from varied health and adjustment problems such as obesity, depression, bullying, and school violence. For example, in the United States, the rate of obesity increased from 6.5\% to 19.6\% between 1976-1980 and 2007-2008 among school children aged 6-11 years, and increased from 5.0\% to 18.1\% during the same period among adolescents aged 12-19 years (Centers for Disease Control and Prevention, 2011). An increasing body of research has shown that the morbidity rate of depression in children is almost equivalent to that in adults in Japan (Denda, 2008; Denda et al., 2004). The Kandersteg Declaration made in Switzerland in 2007 against bullying in children and youth suggested that an estimated 200 million children and youth around the world are being abused by their peers. In Japan, the latest report by the Ministry of Education, Culture, Sports, Science & Technology (MEXT) revealed that the rate of school violence reached its highest level in 2010 (Ministry of Education, Culture, Sports, Science & Technology in Japan, 2011).
Various attempts have previously been made to address these problems in schools. Among them, prevention, specifically universal prevention, is expected to be the most promising with regard to effectiveness, because teachers can implement universal prevention programs on a regular basis in their schools. Additionally, universal prevention targets all children, with the aims of cultivating beneficial characteristics and modifying detrimental ones with respect to health and adjustment. In schools, selective or indicated prevention is difficult to conduct, because it often places a stigma on the targeted children. Especially in Japan, which is a collectivistic country, it is almost impossible to select children with problems or risk factors for prevention programs in schools, because parents are very sensitive to such selection. Thus, the laboratory of one of the authors has been developing and implementing various universal prevention programs over the past 20 years. Those programs are collectively named “PHEECS (Psychological Health Education in Elementary-school Classes by Schoolteachers).” Over 10 programs have been developed within PHEECS (e.g., Yamasaki & Fujii, 2006; Yamasaki & Matsumura, 2005), most of which have been demonstrated to be highly effective.

However, we have gradually recognized a large obstacle to the success of our prevention programs: How can we implement universal prevention programs for health and adjustment on a regular basis in all elementary and high schools? Implementation of universal prevention programs on a regular basis for many successive years is required to fully protect the health and adjustment of children. However, to our knowledge, no extant universal prevention programs for children’s health and adjustment have been implemented on a regular basis in all elementary, middle, and high schools in a large area such as an entire city. As stated below, psychological characteristics such as personality can be fundamental causes and contributors to health or adjustment problems, and they are formed in early developmental stages, taking several years and incorporation of many experiences and interactions in environments in which parental child-rearing attitudes are the most influential. Considering this formative process, it is clear that sufficient time and multiple experiences are required to cultivate beneficial psychological characteristics for health and adjustment, which necessitates implementation on a regular basis for a long period of time, presumably several successive years.

An immense amount of resources, both with respect to manpower and budget, is required to overcome this obstacle. Thus, we first established our center, for the Science of Prevention Education, in Naruto University of Education in Japan, in which 9 full-time researchers are now working with more than 30 part-time researchers and graduate students. Immediately following the establishment of this center, we received a large 5-year grant from the MEXT in Japan, thereby enabling us to initiate this project in 2010.

2. Basic features of the education programs we aim to develop

First, it is important to emphasize that our goal is to develop evidence-based, scientific programs. We call this type of science the “Science of Prevention Education” (Yamasaki & Uchida, 2010). The term “evidence-based” generally indicates that the effectiveness of a program has been confirmed using scientific methods, such as a randomized controlled trial (RCT) design. However, education programs can also be evidence-based with respect to the development of educational purposes and methods as well as evaluation of effectiveness. As described below, our education programs have hierarchical structures of purposes ranging from primary to operational purposes, providing evidence on validation of how the subpurposes contribute to achievement of the primary purposes. The primary purposes also provide data related to health and adjustment.

At present, RCTs are regarded as the best scientific method for establishing the effectiveness of education programs. However, it is difficult to conduct limitation-free RCTs for several reasons. For example, RCTs require the participation of many schools to ensure balance between intervention and control groups (cf. Task force on evidence-based interventions in school psychology, 2003). In addition, students in those groups (or schools) must represent a target population. Moreover, the criticism that RCTs do not reflect natural classroom settings (e.g., Morrison, 2001) cannot be ignored, and the self-report questionnaires used for evaluation in many RCTs contain many errors, such as social desirability and touching neither the unconscious nor preconscious status of participants. Taken together, it is almost impossible to confirm the scientific soundness of education programs based on evaluations of effectiveness alone; thus, purposes and methods must be established utilizing previous scientific data and theories in the domain of natural and social sciences.
The universal programs we develop require that all children are targeted on a regular basis starting during early developmental stages. These requirements allow us to target children in compulsory schools such as elementary and junior high schools in Japan. Although ideally the programs should be conducted beginning in the first grade of elementary school, we have not been able to find enough suitable subjects for regular implementation in this grade in Japan. Educational curricula are more inflexible in Japan than in the United States, and are rigidly controlled by the MEXT. However, there is a new chapter in the MEXT guidelines called “the Period of Integrated Studies” that was developed to cultivate the intellectual phase of “zest for living.” Since the Period of Integrated Studies has similar purposes as our programs and begins in the third grade of elementary school, our programs are currently designed to be implemented once a week throughout the school year beginning in the third grade of elementary school through the first grade of junior high school for 5 successive years. It is quite likely that these programs will be implemented in both earlier and later developmental stages in the future. We also aim to have an official new subject specified for this program in our national educational curricula in the future.

2.1. Comprehensive base education and partial optional education in TOP SELF

Our universal prevention education program, named “TOP SELF” (Trial Of Prevention School Education for Life and Friendship), consists of two types of education: comprehensive base education and partial optional education. Comprehensive base education is applied to all children in elementary (from the third to sixth grades) and junior high (first grade) school throughout the school year on a regular basis, with the aim of comprehensive achievement of health and adjustment; thus, comprehensive base education can be applied to the same children for 6 successive years. In contrast, partial optional education is applied to children in a grade within the same range of grades as in comprehensive base education for a relatively short period, such as 12 weeks (once per week). Partial optional education is a universal prevention program for specific health and adjustment problems. As shown in Table 1, we currently have more than 10 partial optional education prevention programs. Partial optional education is divided into four taxonomic groups: school adjustment, mental health, physical health, and risk behaviors. Each group has two or three prevention programs, each of which consists of 12 to 15 hours of sessions.

In this paper, we focus on the comprehensive base education portion of TOP SELF, because it was developed to be implemented on a regular basis throughout the school year for several successive years, i.e., to overcome the primary obstacle of our prevention programs. One of the most important aims in our prevention programs is regular implementation for all schoolchildren. In addition, the effectiveness of comprehensive base education is expected to be longer lasting and stronger than partial optional education, even if it takes more time to demonstrate this effectiveness.

<table>
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<tr>
<th>Taxonomic groups</th>
<th>Programs</th>
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| School Adjustment| Prevention of bullying  
Prevention of violence  
Prevention of delinquency |
| Mental Health    | Prevention of stress  
Prevention of depression  
Prevention of anxiety |
| Physical Health  | For prevention of lifestyle disease,  
Development and improvement of total lifestyle  
Development and improvement of dietary lifestyle |
| Risk Behaviors   | Prevention of drug abuse  
Prevention of sex-related misbehaviors  
Prevention of smoking and drinking |
2.2. Hierarchical purposes and other features of comprehensive base education in TOP SELF

In TOP SELF, program purposes are hierarchically established from primary purposes to operational purposes under which concrete program methods are developed. Thus, the methods are closely connected to all purposes on a stepwise basis. The primary purposes are development of autonomy and interpersonal relatedness. In this program, autonomy is defined as a composite personality consisting of self-confidence, confidence in others, and intrinsic motivation. Many previous studies have shown that similarly defined autonomy fundamentally affects health and adjustment (e.g., Eysenck, 1987; Grossarth-Maticek, Eysenck, & Vetter, 1988). Yamasaki and Uchida (2010) suggested two personality types that are derived from distorted autonomy: aggressive and passive-dependent personality. In general, the aggressive personality type tends to be associated with coronary heart disease (e.g., Barefoot, Dahlstrom, & Williams, 1983; Rosenman et al., 1975), while the passive-dependent personality type is more commonly associated with cancer (e.g., Eysenck, 1987; Temoshok, 1987). Moreover, both personality types are often associated with depression (e.g., Bokian, 2006; Bridewel, & Chang, 1997).

Interpersonal relatedness is characterized by smooth interactions with others. It includes one’s own sense that one regards others as reliable and friendly and that others regard one likewise. It is quite possible that high levels of autonomy may enhance interpersonal relatedness, since it includes confidence in others. However, a variety of interpersonal skills that are not automatically acquired with high autonomy must be taught to ensure healthy and adaptive interpersonal relatedness. Therefore, we established interpersonal relatedness as a primary purpose, in addition to autonomy. We can easily postulate that interpersonal relatedness is positively associated with adjustment, because it leads to good interpersonal relationships. Furthermore, many previous studies have revealed that social support is positively associated with both mental and physical health (cf. Sarason, Sarason, & Pierce, 1990). It has also been suggested that social support lowers death rates (Berkman & Syme, 1979), and social support is enhanced by good interpersonal relatedness. Thus, interpersonal relatedness is positively associated with health.

These two primary purposes are too large and too abstract to be directly supported by concrete methods. Therefore, we established a hierarchical structure of purposes under the primary purposes of TOP SELF to connect concrete educational methods to the primary purposes. The second tier of purposes under the primary purposes, called constituent purposes, includes the development of self-confidence, understanding and regulating emotions, prosociality, and social skills. Each constituent purpose has its own hierarchical purpose structure, which includes intermediate, subordinate, and operational purposes. Thus, the operational purposes at the lowest level of the hierarchy directly lead to educational methods. Although each of the four constituent purposes is associated with both primary purposes, the strength of the association differs between purposes. The development of self-confidence is more strongly associated with the development of autonomy, while prosociality and social skills are more strongly associated with interpersonal relatedness. In contrast, understanding and regulating emotions is equally associated with both primary purposes. Table 2 shows an example of the purposes under the constituent purpose “development of understanding and regulating emotions.”

As noted above, we have evidence to support the development of each purpose. It is beyond the scope of the present paper to present this scientific evidence; the reader is encouraged to refer to a book published in 2013 by our center for more detail (Center for the Science of Prevention Education in Naruto University of Education, 2013). In this publication, we provide evidence for how a constituent higher-order purpose consists of three or four intermediate purposes, and then provide evidence on the detailed relationship between the constituent purpose and each of the intermediate purposes. Thus, we move sequentially downward through the hierarchy of purposes.

We have successfully completed the development of our comprehensive base education program that was designed to be implemented from the third grade of elementary school through the first grade of junior high school for 5 successive years, with 32 classes per grade for a total of 160 classes (a single class period lasts for 45 and 50 minutes in elementary and junior high school, respectively). Each of the education programs for the four constituent purposes includes eight classes per grade. Which operational purposes are allocated for program implementation depends on the grade, so each grade has different operational purposes and different educational materials and instructions.
3. Fundamentals of the TOP SELF comprehensive base education program

3.1. Relationship between TOP SELF comprehensive base education program and Social and Emotional Learning (SEL)

In recent years, social and emotional learning (SEL) has prevailed, along with the PBIS (Positive Behavior Intervention & Support) program, particularly in the United States. SEL is not a specific program but rather describes a certain type of program. SEL is characterized by five core purposes (competencies), i.e., self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (e.g., Collaborative for Academic, Social, and Emotional Learning, 2005). The purposes in TOP SELF include all of the purposes in SEL, suggesting that TOP SELF comprehensive base education is a type of SEL. In recent years, a number of meta-analyses conducted to evaluate the efficacy of SEL programs (e.g., Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Payton et al., 2008) suggested that they contribute to improved academic performance, in addition to their effectiveness in health and adjustment. Although the TOP SELF programs have not yet yielded any findings regarding academic performance, it is quite possible that they will also improve academic performance, since they are a type of SEL.

3.2. Equal importance of all psychological components

Mind components such as emotions, behaviours, and cognition (or thinking) are equally important in forming the personality types the primary purposes are related to, especially autonomy, in the TOP SELF comprehensive base program. In schools, thinking well is the most important aspect of learning. However, thinking well is just one of the

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<tr>
<th>Intermediate purposes</th>
<th>Subordinate purposes</th>
<th>Operational purposes</th>
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<td>I. To specify emotions</td>
<td>1. To specify one's own emotions</td>
<td>a. To notice one's own emotions from signs of the body</td>
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<td></td>
<td>b. To notice one's own emotions from voices and words</td>
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<td></td>
<td>2. To specify others' emotions</td>
<td>c. To notice others' emotions from signs of the body</td>
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<tr>
<td></td>
<td></td>
<td>d. To notice others' emotions from voices and words</td>
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<td>II. To understand emotions</td>
<td>3. To understand one's own emotions</td>
<td>e. To search for the causes of one's own emotions</td>
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<td>f. To search for the thoughts evoking one's own emotions</td>
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<td>g. To understand that one's own emotions vary and have unique meanings</td>
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<td>h. To understand that one's own emotions differ in their strengths and meanings</td>
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<td>4. To understand others' emotions</td>
<td>i. To search for the causes of others' emotions</td>
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<td>j. To search for the thoughts evoking others' own emotions</td>
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<td>k. To understand that others' emotions vary and have unique meanings</td>
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<td></td>
<td>l. To understand that others' emotions differ in their strengths and meanings</td>
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<td>III. To regulate emotions</td>
<td>5. To regulate one's own emotions</td>
<td>m. To understand strategies for coping with one's own emotions</td>
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<td></td>
<td>n. To develop coping strategies for one's own emotions</td>
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<td>o. To implement appropriate coping strategies for one's own emotions</td>
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<td></td>
<td>6. To regulate others' emotions</td>
<td>p. To understand strategies for coping with others' emotions</td>
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<tr>
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<td>r. To implement appropriate coping strategies for others' emotions</td>
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important factors in TOP SELF. As noted above, autonomy consists of self-confidence, confidence in others, and intrinsic motivation. Its main components are formed very early in development, from birth to preschool-age childhood. As an example, consider a baby who is crying (behaviour) due to hunger. A good mother will rush to the baby immediately and provide milk until the baby is full. After having enough milk, the baby feels satisfied (emotion). If the baby repeatedly has similar experiences, he or she will develop the idea (cognition or thinking) that whenever he or she cries due to hunger, the mother will arrive promptly and provide milk, resulting in the feeling of being satisfied and free of hunger. Thus, by engaging various functions of the mind, children acquire autonomy as follows: they enhance self-confidence by experiencing satisfaction caused by their own behaviours, e.g., by crying (Bell & Ainsworth, 1972; Erickson, 1963), and they improve their confidence in others by learning that their mothers always satisfy their appetites when asked (Erickson, 1963). Moreover, as in this example, the mother attempts to satisfy her child’s appetite fully and promptly upon request. Thus, the mother’s behaviour does not reflect an attempt to control her child, and rather demonstrates her unconditional love. As control often impairs intrinsic motivation (e.g., Deci, Koestner, & Ryan, 1999; Greene & Lepper, 1974), this behaviour by the mother protects the child’s intrinsic motivation, which is already high at birth (Deci, 1975). Note that any adult, not just mothers, can play a similar role for children.

As demonstrated in the example above, various psychological components, such as emotions (or feelings), behaviours, and cognition (or thinking), simultaneously function with equal importance in forming personality. As a pattern of the occurrence of these psychological components is stably repeated, it leads to the formation of a personality. Once the personality is formed, it begins to control all of the psychological components. Thus, if the personality is problematic, all of the related psychological components are also problematic. Based on this line of thinking, modifying the personality to be healthier and more adaptive might be expected to make the psychological components healthy and adaptive. However, personality is too abstract to precisely target in the educational setting. To modify psychological components including personality, the developmental process must be followed, i.e., from concrete psychological components to personality. If we succeed in making all of the psychological components healthier, the personality naturally becomes healthier, which is one of the principles of TOP SELF.

3.3. Education from the viewpoints of both unconscious and conscious status, and the importance of emotional functions

In recent years, emotion-related functions have been a hot topic in various research domains, such as psychology and brain science. However, the usage of terms describing emotions have been inconsistent, which has partially hampered the advancement of research. Many similar terms, such as emotion, affect, feeling, and mood, are used, as well as closely related terms, such as motivation and appetite. In this paper, we define two words, emotion and feeling, according to Damasio (1994, 2003). Emotions are subtle body reactions, such as neuroendocrine and physiological changes, that occur before or without entering consciousness; that is, they are generally unconscious or preconscious. In contrast, feelings arise from patterns of various strongly evoked emotions. Feelings can be conscious, as indicated by specific names such as anger, grief, and joy. Behaviours or cognition are often said to produce emotions and feelings. However, recent evidence suggests that emotions or feelings may actually produce certain behaviours and cognition.

Studies of individuals with damage to parts of the brain responsible for adaptively evoking and utilizing emotions, such as the ventral and medial prefrontal regions, have suggested that emotions play crucial roles in adaptive behaviours and cognition (e.g., Bechara, Damasio, Damasio, & Anderson, 1994; Bechara, Tranel, Damasio, & Damasio, 1996; Damasio, 1994). In our experience, emotions (and often feelings), cognition (or thinking), and behaviours occur together and are stored in unified forms as memories. When encountering events that are similar to those previously experienced, the memories are triggered as guided by their emotions and feelings, leading to initiation of cognition and behaviours. This possibility strongly suggests that schools should reconsider the importance of emotions. In general, educational methods in schools are designed around thinking, cognition, and behaviours; they seldom account for emotions, because teachers do not generally know how to evoke emotions or how to check emotions, and they tend to know little about the important roles of emotions.

TOP SELF attempts to equally address all of the psychological components discussed above, although it emphasizes the role of emotions. After evoking emotions and making them conscious, we unify emotions, cognition,
thinking, and behaviours, storing them collectively in memories. In discussing their emotion-focused therapy, Greenberg and colleagues (e.g., Greenberg, 2008) suggest that making unconscious or preconscious emotions conscious is crucial for adaptive cognition and behaviours. Needless to say, all psychological components are designed to be adaptive and healthy.

3.4. The importance of positive emotions

Although negative emotions are well known to help in coping with imminent negative events, the roles of positive emotions are less clear. In recent years, inspired by the positive psychology movement (e.g., Seligman, 2002; Seligman & Csikszentmihalyi, 2000), many studies have clarified the role of positive emotions (see Fredrickson, 1998; Lyubomirski, King, & Diener, 2005, for reviews). Such research has revealed that positive emotions arise to broaden and build human resources to be used for future negative events (Fredrickson, 2001; Fredrickson & Cohn, 2008). Of course, school classrooms are not generally associated with imminent negative conditions, as normal classrooms are considered to be safe. Thus, in the school setting, children acquire and improve their skills to overcome future negative experiences through the evocation of positive emotions.

In addition, the feeling of positive emotions by children in their classrooms indicates that they are highly involved in the class. Without such involvement, children do not tend to learn anything well therein.

3.5. Small group activities

In TOP SELF, various types of activities are conducted, including activities involving individuals, pairs, small groups, and the whole class. The small group activities are the most important, for several reasons. First, balanced interpersonal relationships are maintained between children in small group activities. In general, when teachers instruct children in the whole-class setting, their authority is strong and they exert control over the children, which tends to impair their students’ intrinsic motivation. Second, children in each small group differ in the level of development of psychological components such as intelligence. Thus, utilizing Piagetian terms and theories of intelligence development (cf. Pulaski, 1971), this increases the possibility that one child can create an environment to which some other children can be motivated to accommodate their schemes. This accommodation may not be limited to intelligence, but may also apply to other psychological components, such as emotions and behaviours. In addition, emotions, feelings, cognition, and behaviours tend to move more freely in small groups compared to situations controlled by teachers. Third, small group activities in which the group members support each other directly benefit children’s health and adjustment, as suggested above (cf. Sarason et al., 1990).

3.6. The number of classes for each of the four constituent purposes

Currently, TOP SELF is implemented from the third grade of elementary school through the first grade of junior high school. Each of the four types of education program is implemented for eight classes in each grade. Thus, 160 classes are implemented in total (8 classes x 4 education programs x 5 grades). Since most schools cannot initially implement this many classes, we recommend implementing eight classes for one of the four education programs in one of the five grades. In schools that implement all of the classes, TOP SELF is conducted once a week throughout the school year for 5 successive years. We believe that such a large number of classes over a long period of time are required to prevent children’s health and adjustment problems.

4. TOP SELF educational methods

The educational methods in TOP SELF aim to both achieve educational purposes and capture the attention of all children during classes. As shown in Table 3, TOP SELF follows an original standard class procedure. Such standard procedures are critical for programs such as TOP SELF that are intended for widespread use.
Table 3. Standard class procedure in TOP SELF

1) Paying attention to the necessity of concentration during the class (including how to do group activities)
2) Introducing the purposes of the class
3) Watching an opening animated story
4) Doing preliminary activities
5) Doing climax activities
6) Sharing feelings and ideas during the activities
7) Watching a closing animated story
8) Confirming the process of the classes
9) Listening to the meaning of what was learned in the class

At the beginning of the class, teachers (or program practitioners) make some remarks about the necessity of concentrating during the class. In the first class, teachers explain how the classes proceed in this program using animated slides. Next, teachers briefly and clearly explain the purposes of the class. Thereafter, teachers show the children an opening animated story using a projector and a screen in the classroom (if classrooms have large TV sets, these are used instead). This animated story, which is a continuous story from the first class to the last class, is one of the outstanding characteristics of TOP SELF. It motivates children to actively participate in the class, and enhances the children’s’ memories and consciousness regarding the class content, because children feel as if they are participating in the story. The animated stories in a class are always limited to 5 minutes or less in total.

Next, preliminary and climax activities are conducted. These activities are the most important part of the class: if the activities are successful, the entire class is a success; if the activities fail, the entire class is a failure. Specifically, the climax activities are designed for maximum enjoyment by the children and achievement of educational purposes. In recent years, regular school classrooms commonly include a number of children who have difficulty paying attention in class. TOP SELF is designed to maximize the focus of all children in the classroom. Although it is difficult, the activities in TOP SELF, as well as the animated stories, are sufficiently engaging to capture and maintain children’s’ attention during the class. This feature is present in all of the 160 classes in the TOP SELF base education program.

After the activities, children share their feelings and ideas about the class with each other. Thereafter, a closing animated story is presented. In the sixth grade of elementary school and the first grade of junior high school, an “incentive question” is inserted before the animated story. This question has no definite correct answers, and rather inspires children’s thoughts and curiosities, making their memories about the class more long-term and vivid.

Next, children confirm the process of the classes. In the classroom, a large poster board that describes the class process is mounted to the wall or door. Stickers that show what they learned in the present class are attached on the poster. By using this poster, their stream of consciousness about the content and process of the classes lengthens and becomes more vivid. Finally, the significance of what the children learned in the class is provided orally by the teachers.

At least two times, just after the education program starts and just after it ends, a newsletter is provided to the families that describes the classes and emphasizes the necessity of some cooperation from the parents to achieve the educational purposes. Homework is assigned one or two times during a series of classes, which is often completed in collaboration with families. Although it is difficult to involve families in school education, TOP SELF provides some opportunities to do so.

TOP SELF utilizes various scientific methods, the effectiveness of which regarding target educational purposes has been empirically confirmed. TOP SELF does not focus on any specific methods. Instead, it employs a large number of appropriate methods depending on educational purposes, age of the children, number of children in a class, etc. The present paper cannot describe all of these methods due to their sheer number and a lack of space. Of course, scientific methods cannot be applied to all methods in TOP SELF. In those cases, evaluation of their effectiveness is required.
5. Evaluations in TOP SELF

Implementation of prevention education requires evaluation. At present, in the domain of science, RCTs are the best method for determining the effectiveness of an intervention or prevention. However, such evaluation cannot be applied to daily school education. In schools, children are frequently evaluated in the form of grades and test scores. Likewise, in TOP SELF, children are evaluated after a series of classes has been completed. Such evaluation must also be educational; that is, it should have some positive effect on the desirable features that the education aims to establish. If prevention education is to be implemented on a regular basis in schools, this kind of evaluation is indispensable. The evaluation in TOP SELF attempts to show children their positive changes. For example, children are asked to rate how much they and their whole class improved with respect to the educational purposes, and the results are depicted using colourful illustrations in the evaluation notebook that is given to each child. In this education program, when children focus on classes and pay attention to their improvement, most of their ratings become positive, showing their growth regarding the educational purposes.

We have not yet conducted any RCTs to evaluate the TOP SELF program. As TOP SELF is a very large-scale program, it would be ideal to move on to RCTs after the program is completed. As the TOP SELF base education program continues for 5 years, evaluation methods that can reflect children’s changes over the 5 years must be developed. To our knowledge, such evaluation methods have not been developed for any previous psychological education programs. Of course, we have already assessed our classes in which TOP SELF was implemented using reliable and valid self-report questionnaires, which have suggested that TOP SELF is highly effective. In addition, most children who participated reported that this program was very enjoyable and easily understood. Although evaluations of other education programs have primarily relied on self-reports, self-reports have many limitations, such as causing defensiveness and deliberate distortion. We have developed other evaluation methods, such as peer ratings and nominations and teacher ratings; however, peer evaluations are difficult to conduct in Japan and teachers are often too busy to evaluate their students individually. Actual outcomes such as school absence and sickroom visits could be reliable measures; however, many programs cannot utilize these because their purposes are irrelevant to those outcomes. We are currently developing an evaluation method to scientifically analyse children written work that can be easily done in schools and are free from some of the limitations of self-reports.

6. Future directions

TOP SELF is an innovative education program in that it can be implemented for all school children on a regular basis for 5 successive years. In addition, it is based on new theoretical backgrounds that underscore the functions of unconscious, preconscious, and conscious emotions. It seems unlikely that previous prevention education programs could capture the attention of all children in classes for a long period of time. Children are easily bored in school classes. TOP SELF overcame this problem by utilizing enjoyable methods based on scientific data and theories. However, being enjoyable and scientific is not sufficient; the theories, methods, and evaluations of TOP SELF require improvement. Specifically, the evaluations in TOP SELF appear to lag behind those of extant prevention education programs, although it does introduce a new type of evaluation that is returned to each child who participated, underscoring his or her improvements in the education. Thus, TOP SELF will continue to be improved in all of the above components, while following the same theoretical course.

School education in Japan is totally controlled by the MEXT, which issues the government curriculum guidelines that all schools are instructed to follow. These guidelines are revised every 10 years. If TOP SELF were included in the guidelines, all schools would implement it on a regular basis. There are two routes to achieve this goal. The first route is to directly contact the government and politicians to actualize the involvement of TOP SELF in the guidelines. This might be considered to be a political route. The second route, which is more important, is to allow teachers to experience and subjectively evaluate TOP SELF in their schools, which could possibly lead to positive evaluations. This route requires teachers to independently implement TOP SELF after observing implementations by professional practitioners. We are currently pursuing the second route because we believe it to be the most promising. Even if TOP SELF is included in the guidelines in the future, it will be removed if it is not accepted by teachers. In fact, even if TOP SELF is not included in the guidelines in the near future, it should only be
a matter of time before it is if teachers accept it. At present, TOP SELF has been implemented only in certain situations or classes in schools. Yet, as stated earlier, to achieve long-term implementation, we recommend that TOP SELF be integrated into the chapter entitled “the Period for Integrated Studies” that was introduced into the guidelines more than 10 years ago. The primary purpose of the guidelines described in this chapter is to cultivate autonomy for learning, which is consistent with the purpose of TOP SELF.

It will be challenging to successfully follow the second route for incorporating TOPSELF into the guidelines. However, there are several possible mechanisms for getting teachers to implement, experience, and evaluate TOP SELF. First, a training system for teachers must be established, as they currently have neither the knowledge nor the skills required to implement TOP SELF. Achieving the ultimate goal of implementing TOP SELF on a regular basis in all schools requires teacher leaders who can teach TOP SELF to their colleagues in schools. Second, methods for marketing and distributing the well-designed TOP SELF educational materials to schools, such as making them available on the Internet, must be developed. To accomplish this, a large amount of financial support is essential. Finally, materials such as books and manuals for this education program must be ready for teachers whenever they become interested in TOP SELF. Large obstacles always precede innovative new programs. We must therefore be well prepared to overcome them with respect to both the establishment of effective education and smooth interpersonal relationships.

Academics are important in schools; however, health and adjustment are more important. If TOP SELF can improve academics, health, and adjustment, it will be the ideal program to implement for both teachers and children in schools.

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