Piloting the Behavioral and Emotional Rating Scale-2 (BERS-2) in a Chinese Primary School

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Abstract

Behavioral and Emotional Rating Scale-2 is based on strength-based assessment with three rating scales which include Youth Rating Scale, Parent Rating Scale and Teacher Rating Scale to assess behavioral and emotional strengths and if they have behavioral and emotional problems. This research was studied in a Chinese primary school with the original BERS-2 questionnaires translated into Chinese. The translated BERS-2 questionnaires were distributed and after the data was collected, the result was analyzed in SPSS. However, the result was negative to be summarized the BERS-2 was not valid enough in this primary school, and the *Affective Strength* in the YRS was not reliable enough, but the overall rating scales and other subscales were reliable.

Depository

Additional information

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1   INTRODUCTION

Behavioral and Emotional Rating Scale-2 (BERS-2) has been used internationally as an instrument to measure the behavior and emotions of children and adolescents. Furthermore, strength-based assessment has been developed as an instrument to measure the emotional and behavioral skills that "create a sense of personal accomplishment; contribute to satisfying relationships with family members, peers, and adults; enhance one's ability to deal with adversity and stress; and promote one's personal, social, and academic development" (Epstein & Sharma 1998, 3), which is to measure children's strength such as positive interpersonal skills rather than deficits. The rules that strength-based assessment is established are as follows: (1) All children have strengths; (2) focusing on a child's strengths rather than weaknesses may result in enhanced motivation and improved performance; (3) failure to demonstrate a skill should first be viewed as an opportunity to learn the skill rather than as a problem; (4) a focus on strengths when developing educational, mental health, and social work treatment plans may result in greater acceptability by key players (Epstein, Harniss, Robbins, Wheeler, Cyrulik, Kriz & Nelson 2002, 286). The focus on strengths and competencies is directly contrast to the more familiar and traditional deficit-oriented assessment models (Epstein 1999, 258). By focusing on the positive aspects rather than negative, children can be inspired and encouraged to make up what they are lack of, therefore, it can be better for children's growth and development.

Additionally, the BERS-2 can also help children with learning disabilities (LD) and emotional and behavioral disorders (EBD). When previously assessing LDs and EBDs, and even presently, the main concentration has been on finding deficits, whereas the establishment of the BERS relies on the strength-based assessment to find children's abilities, competences, skills and strength rather than finding the children's disadvantages and insufficiencies. Furthermore, previous studies have shown that utility of the BERS improved significantly over chance in classifying students with EBD and nondisabled students, but not in classifying the EBD assessment process (Reid, Epstein, Pastor & Ryser 2000, 348).

A family is the basic and intrinsic unit in society, as well as one can expose his/her values and beliefs of his/her own culture no matter educated, disabled or socialized (Gargiulo 2010, 113). Numerous studies confirm that it is important to attract parents to cooperate with the schools and teachers, in order to comprehensively encourage the child's development (Gonzalez-DeHass, Willems & Holbein 2005, 119). Through collaborative efforts, parents and teachers can ensure that child receives early intervention if needs symptoms for special needs are present, or if test results indicate that the child has other issues related to emotional and behavioral problems. Furthermore, researchers have confirmed that the overall involvement of parents represent a positive contribution to learning and the learning achievements of pupils, therefore indicating the benefit and significance of the parents cooperation with schools (Hoover-Dempsey & Sandler 1997, 3).

It is believed that parental involvement is significant to the development of children especially to their educational experiences, in other words, parents can offer valuable information and resources to professionals, which means parents invest a lot to their children no matter time or emotions. However, it was not a long history that the value of parents was realized and teachers and parents started to establish cooperative relationships (Gargiulo 2010, 114). Some studies have firmly confirmed that the parents' involvement can have a positive influence on children's motivation and well-being at school as well as children's learning outcomes (Gonzalez-Dehass, Willems & Holbein 2005, 117; Hoover-Dempsey & Sandler 1997, 3).

A community-based service for children with the EBD is necessary and important. There were reports to show the consequences of school services for those children with the EBD, indicated the inadequate accessibility of needed services and a need to cooperative and interagency practices, which declaimed there was a need to think about how schools and communities should serve for the EBD children and their families (Epstein, Nelson. Polsgrove, Coutinho, Cumblad & Quinn 1993, 127). Therefore, a need to establish a comprehensive and collaborative community-based service is of significance, which can provide an adequate and proper variety of services to meet the thought-provoking needs of the EBD children (Epstein, Cullinan, Quinn & Cumblad

1994, 51). There are several key points to describe the community-based approach: firstly, the service should be family-centered which means that parents must be involved to determine what kind of services would be offered especially in the process of planning and providing intervention; secondly, services must be on the basis of community, which is situated and accomplished in the places the problems are obvious; thirdly, due to plenty of children existed not only one problem, a comprehensive service should be accessible to those children with a personalized outline. Thus, it is important to collaborate in planning, assessment, implementation and evaluation to provide a well-designed and closely-linked service to the EBD children. In addition, prevention and early identification should be highly valued in the community-based services, as well as the later independent life. (Epstein et al. 1994, 52.)

Although it has been proved that psychometric properties of the BERS-2 is widely accepted as a valid and reliable measurement instrument in the places where rating scales have been used such as the US, it is vital to ensure the scale is valid and reliable when it is introduced into another culture or translated from the original language to another language (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999). That's why validity and reliability was one of the most important issues studied in this research since the original questionnaires have been translated from English to Chinese and has never been used in Chinese school settings where there is a much different cultural background compared to the United States, Finland and other countries where the rating scales have been used previously.

In China, it is common that parents always anticipate a lot on children's school performance especially learning outcomes, compliance, persistence and assiduousness. However, in contrast, Chinese parents can hardly be aware of children's emotional and behavioral problems due to the lack of knowledge and consciousness in mental health problems. (Liu, Kurita, Guo, Miyake, Ze & Cao 1999, 713.) Thus, there is a need to introduce strength-based assessment into China in order to help Chinese parents find out the advantages rather than weaknesses exsiting in the children. Moreover, it can also help Chinese parents know about the EBD.

The main purpose of this study was to assess the psychometric properties (validity and reliability) of a Chinese version of the Behavioral and Emotional Rating Scale-2 (BERS-2) in a Chinese primary school. In addition, there were several other aims about this study. At first, it should be tested if the BERS-2 strength index could be replicated among Chinese children in a certain primary school. Secondly, in order to know the consistency and differences of the three instruments, in other words, to what extent did the three rating scales match, one way anova and correlation were used. Last but not least, in order to know whether there were some differences existed between boys and girls among different subscales in the BERS-2, t-test was studied.

2   BEHAVIORAL AND EMOTIONAL DEVELOPMENT

2.1   Behavioral and emotional development

In biology, it is common to tell all types of changes of human body while mental development is relatively paid little attention (Ulijaszek, Johanson & Preece 1998, 237). It is quite clear that in the period of growth, there is the process that from a single cell to the full organism of an adult, where many variables involve and give rise to an international network where all functions and behavior can express themselves in a certain setting (Ulijaszek, Johanson & Preece 1998, 237).

It has been controversial that human behavior is determined by genetic factors in the history of psychology as well as human history (Nagoshi 1994, 345). Although it is possible that behavioral genetics can produce determents for behavior, however, in reality, it was shown that gene cannot determine behavior directly, because behavior can be also influenced by environment through learning (Nagoshi 1994, 346). All behavior is seen as serving to satisfy a series of fundamental natures no matter in a direct way or not. In the process of development, the first biological initiatives come to be related to the secondary drives, and fulfillment of the second one helps to satisfy the former (Ulijaszek, Johanson & Preece 1998, 243).

Emotion is a significant part of perception; therefore, it plays an essential role in cognition and personality development (Ulijaszek, Johanson & Preece 1998, 241). Emotion is a subjective experience, based on the personal perception of a certain context, including a psychological response and relevant method or withdrawal behaviors, probably related to a dynamic process of stimulus of assumed utilities or bodily movements organized by the hypothalamus. Additionally, emotions play an important role in managing interior psychological processes and social relations (Ulijaszek, Johanson & Preece 1998, 241). Emotion experiences occur when there are complicated feelings and meanings, which come automatically by emotions schemes that are organizations of experiences (Greenberg & Paivio 1997, 22).

There are some theories on the development of emotions proposed by observers of human behavior, for example, Jean Piaget discussed how emotions develop as infants interrelate with physical environment; Sigmund Freud and Rene Spitz discussed how emotions emerge from social relationships (Stewart, Friedman &b Koch 1985, 275). From infant period, we can experience feelings and emotional system of infants are involved in a rapid judgement on what is good or bad for them (Greenberg & Paivio 1997, 29). Emotional development is the story about how to develop self-regulation, such as to suck one's thumb, to use transitional object, which are the skills to grow a sense of secure interdependence that is the sign of healthy emotion regulation (Greenberg & Paivio 1997, 29).

If a child is not able to effect changes in relationship from the environment; or a child avoids emotion; or has problems in regulating emotions; or has trauma; or has dysfunctional meaning construction process, it would be quite possible that the child has emotional disorders to some extent (Greenberg & Paivio 1997, 55).

2.2   Emotional and behavioral disorders

Children and youth with disordered emotion and behavior usually cannot get on well with others, that is to say, children with emotional and behavioral disorders usually have problems to in socializing. Additionally, children with emotional and behavioral disorders always interact with teachers in a negative way (Hallahan, Kauffman & Pullen 2014, 243). Moreover, emotional and behavioral disordered students usually have a lower intelligence quality which may lead to the lower grades, worse academic results, and higher dropout rates (Hallahan, Kauffman & Pullen 2014, 257). From what has been mentioned, it is easy to understand that children and youth with emotional and behavioral disorders are always faced with challenges which may result in short-term and long-term consequences. It is common that children with the EBD have at least three experiences. Firstly, it is easy for them to make their teachers, parents and peers upset and troublesome. Secondly, because of their bad behavior, they are often blamed, but no one recognizes that their behavior is due to they are disabled or with special

needs. Thirdly, children with the EBD are considered to be mentally ill which is often used in the field out of special education. (Gargiulo 2010, 273.)

2.2.1 Prevalence

Prevalence means the total number of individuals or the percentage of people who have a certain kind of disorder (Hallahan et al. 2014, 21; Kauffman & Landrum 2013, 37). Prevalence has been quite attractive to special educators who are interested in planning programs to give children intervention (Kauffman & Landrum 2013, 38). However, it is difficult to get an exact prevalence estimated because of methodological problems, social policy and economic factors. In America, it has been regarded as reasonable estimate that there was at least 3% to 6% school-aged children should be included in special education while only less than 1% of them receive special education (Kauffman & Landrum 2013, 45). Other studies showed that in the USA and some other countries the percentage of school-aged children and adolescents who are emotional and behavioral disordered was 6% to 10% (Hallahan et al. 2014, 247). Therefore, there is a huge gap between the prevalence estimate and special education and services.

In China, because of the Cultural Revolution and the contradiction of Chinese attitude to psychological assessment, there were comparatively few studies on children psychology before 1980s (Zhang 1988, 106). However, Chinese psychology got rapid development with social and economic reform and development. Gradually, there were studies on children's behavioral and emotional problems in China. Studies showed that the prevalence of emotional and behavioral problems among children ranging from 3.1% to 13%, which was rather low (Guo 1989, 243; Shen, Wang & Yang 1985, 777). Another study showed that the prevalence of behavioral problems among Chinese children was 9.3% to 11.5% (Liu et al. 1999, 710).

2.2.2 Defining emotional and behavioral disorders

It is difficult to make a reliable definition on emotional and behavioral disorders, but it is necessary to define it. Reasons that the EBD is difficult to define are as follows: first, EBD is only social construct which should be defined by social rules and can be changed or redefined; second, when defining the EBD, it is inevitably subjective even

only a part. However, it is necessary and significant to get a definition of the EBD in order to address children's disabilities exactly. (Kauffman & Landrum 2013, 24.)

The definition of emotional and behavioral disorders proposed in the 1980s which have a strong base of support read as follows: (Kauffman & Landrum 2013, 33; Hallahan, Kauffman & Pullen 2014, 245-246; Rutherford, Quinn, & Mathur 2004, 45).

Ⅰ. The term emotional and behavioral disorder means a disability characterized by emotional or behavioral response in school program so different from appropriate age, cultural, or ethnic norms that they adversely affect educational performance, including academic, social, vocational, or personal skills and which:

(a) is more than temporary, expected response to stressful events in the environment;

(b) is consistently exhibited in two different settings, at least one of which is school related; and

(c) persists despite individualized interventions within the education program, unless, in the judgment of the team, the child's or youth's history indicates that such interventions would not be effective;

Emotional and behavioral disorders can co-exist with other disabilities.

Ⅱ.This category may include children or youth with schizophrenic disorders, affective disorders, anxiety disorders, or other sustainable disturbances of conduct or adjustment when they adversely affect educational performance in accordance with section Ⅰ. (Forness & Knitzer 1992, 13)

From this definition, the EBD is related to some symptoms which show problems, some even extreme and chronic problems in behavior which is not acceptable due to social and cultural anticipations (Hallahan, Kauffman & Pyllen 2014, 269).

There are two dimensions of behavioral disorders including externalizing and internalizing. The features of externalizing dimension are aggressive, acting-out behaviors, while the characteristics of internalizing dimension are anxiety, withdrawn

behavior and depression. The most commonly seen type of emotional and behavioral disorders is externalizing (Hallahan, Kauffman & Pullen 2014, 246-247). Sometimes, children with the EBD can be either with externalizing or internalizing behavior or between the two (Kauffman & Landrum 2013, 34).

In schools, it is easy for teachers to notice those students with disordered emotion and behavior. Behaviors of those students with externalizing problems can be obvious, because they would conflict with teachers' anticipation and show aggression to others. In families and communities, children with externalizing type of EBD are also conflict with adults or peers. (Nelson & Pearson 1191, 11.) Although it might be less obvious for those children with internalizing behaviors than those EBD children with externalizing problems showing aggression, internalizing children are still not difficult to distinguish (Hallahan et al. 2014, 250). Children with internalizing problems show less conflict to others but they tend to have less interaction with others and have low consistency to others (Nelson & Pearson 1991, 11).

Screening is a method to determine whether the child needs additional assessment, which is a brief process to sample a few performances across skills or a domain. It is easy to know from the definition, screening is an efficient and economic method, thus, a lot of students can be screened in a short time with a minimum of money (Kauffman & Landrum 2013, 342). Plenty of rating scales can be used as screening instruments, for example, the *Behavioral and Emotional Rating Scale* (BERS-2; Epstein, 2004), which is a strength-based assessment to measure emotional and behavioral skills and competencies. *Systematic Screening for Behavior Disorders* (SSBD; Walker &Severson, 1990), is designed to identify elementary schools students with EBD according to teachers' judgement and assumption. S*tudent Risk Screening Scale* (SRSS; Drummond, 1994), is based on teachers' rating on every student with seven items. The *School Archival Records Search* (SARS) involves coding and quantifying school records of elementary schools with eleven variables. (Kauffman & Landrum 2013, 345.)

There is another useful tool to identify children with disordered emotional and behavior at an early age named *functional behavioral assessment* (FBA), which helps specialists answer questions related to children's undesirable behavior, for example, "What

function does the behavior serve? Does the child get something useful?" After getting answers, FBA practitioners can plan interventions to improve the situation on children's challenging behaviors with elimination factors (Kauffman & Landrum 2013, 349). FBA is a method to attain and analyze assessment data to understand the nature and reasons of problematic behavior better and develop more efficient and helpful interventions (Kauffman & Landrum 2013, 365).

2.2.3   Causal factors

Causal factors can also be called risk factors, which have been known clearly to increase the potential of undesirable, destructive longstanding consequences (Kauffman & Landrum 2013, 55). The definition of causal factors is an agent or features of an individual or the environment which may lead to potential or possible negative outcome increasing (Compas & Reeslund, 2009, 562). It is vital to identify the risk factors of children with the EBD and then deliver them to the mental health services (Liu et al. 1999, 708). The identification and awareness of risk factors can help detect and develop early intervention for those children with emotional and behavioral disorders.

Generally speaking, there are mainly four factors including biology, family, school and culture (Kauffman 2005, 161), which are interrelated (Kauffman & Landrum 2013, 95). Biological factors may influence the development of emotional and behavioral disorders from genetics, brain injury or dysfunction, malnutrition and allergies and temperament (Kauffman 2005, 166). Since all behaviors should be related to biochemical neurological activity, biological factors are something special to people. However, the best explanations of antisocial disorders may be provided by biological factors together with social risk factors. Thus, biological factors do not often have effect on emotional and behavioral disorders isolated which should be at least together with the environment. There are a number of professionals admit that the development of emotional and behavioral disorders is the result of biological and environmental factors, however, there is an increasing consensus that biological factors can only influence some certain disorders such as autism, bipolar disorder and social phobia (Gargiulo 2010, 285). Family factors include family structure and interaction in family (Kauffman 2005, 188). Research shows family structure does not contribute to the development of children's

emotional and behavioral disorders (Kauffman 2005, 191); however, researchers found that negative family interactions can influence youngsters' emotion and behavior (Bell 1968, 90). School environment as well as family environment should be the most significant to the youth, where children can develop their social skills which can be directly controlled by educators. Social-interpersonal and academic learning are included in school factors (Kauffman 2005, 206). Pupils with emotional and behavioral disorders are always below average intellectual and academic skills as well as lack of social skills. Cultural factors are related to values of culture, peer groups, ethnicity and social class. Cultural conflict may result in children's stress and behavioral problems (Kauffman 2005, 253). Although researchers have found that there are mainly four factors to explain the causes of emotional and behavioral disorders including biological disorders and diseases, inharmonious family relationship, unpleasant experiences in schools, and negative culture effect (Hallahan et al. 2014, 247), it should be careful for us to conclude on one child or student that she/ he is emotional and behavioral disordered (Kauffman 2005, 254).

Study showed that behavioral problems among Chinese children were related to many psychosocial and biological factors, among which single-parent is the most important and influential factor (Liu et al. 1999, 711).

2.2.4 Education consideration and early intervention of Emotional and Behavioral Disorders

In general, students with disordered emotion and behavior normally behave worse in academic outcomes compared to their peers who are with normal emotion and behavior, in other words, those emotional and behavioral disordered children, may have lower intelligence, lower grade, and lower graduation rates, and higher possibility to drop out from school (Hallahan et al. 2014, 257). Thus, it is challenging to educate children with the EBD (Gargiulo 2010, 312), but it is necessary to balance appropriate behavior control and highly structured academic instruction to emotion and behavior disordered children (Hallahan et al. 2014, 269). A consensus on how to educate children with the EBD, however, has never been reached by special educators, even though there are several conceptual models of education during decades (Kauffman & Landrum, 2006),

which all include two aspects, one is how to control misbehaviors, and the other one is to teach students required academic and social skills. Special educators realized the importance to integrate educational, psychological and social services to teach and help children with the EBD (Hallahan et al. 2014, 257).

It is well known that the EBD may bring either long-term or short-term influence to children (Hallahan, Kauffaman & Pullen, 2014; Kauffman & Landrum 2013, 55). Therefore, if emotional and behavior disordered children are identified early enough and sufficient intervention or prevention has been used to help them, there is possibility that the children can recover and behave normally (Hallahan et al. 2014, 267). There are home-based, school-based or a combination of those two for early intervention, which can involve service such as training, guidance and counselling, and support (Stroul & Friedman 1986, 35). There are two popular early intervention ways:

> One is to identify problems when the child is young;

> Another one is to catch the early stages of misbehavior regardless the age of the person.

To those two early intervention methods, the main aim is to get their essence of prevention and early identification (Kauffman & Landrum 2013, 55). Identifying problems early, providing effective guidance and giving positive behavior support, is good for children with emotional and behavioral disorders (Kauffman & Landrum 2013, 63).

Generally speaking, there are three types of interventions including physical environment interventions, academic and instructional interventions, behavioral and behavioral-cognitive interventions. Physical environment interventions involves a lot of interventions related to managing physical environment for those children with the EBD, which are at the primary level of prevention, such as time management, transition management and classroom management. Academic and instructional interventions are that through educating, educators can minimalize the negative long-term outcomes by the providing a well-prepared academic program. Due to the specialty of children with the EBD, academic and instructional interventions should include two aspects: one is

academic curriculum and another one is instruction delivery. Behavioral and cognitive-behavioral interventions include behavior modification and cognitive-behavior modification, which share some similarities such as reinforcement. However, they also have significant difference that behavior modification depends on external resources while the cognitive-behavioral modification aims to improve the internal behavior of students. (Gargiulo 2010, 296-305.)

It is a basic aim for any kind of disability to be identified as early as possible and to get access to early intervention and prevention (Hallahan et al. 2014, 266). In general, there is possibility to identify those children who are potentially emotion and behavior disordered early since those children can show aggression and anti-social behavior. The EBD should be identified as early as possible; afterwards their teachers and families should know how to tell them necessary and essential social skills and how to deal with their problems in a positive and non-violent way (Hallahan et al. 2014, 267).

After identifying the derivation of a child's challenging behavior, the professional can make a certain plan to develop an intervention for the child. Thus, it is important and complex to choose a suitable approach to make interventions for children with the EBD (Gargiulo 2010, 295). Although there is plenty of attention and suggestion on early intervention for the EBD, it has been seldom put into practice (Hallahan et al. 2014, 270; Kauffman & Landrum 2013, 344).

3 ASSESSING BEHAVIORAL AND EMOTIONAL DEVELOPMENT

Generally speaking, assessment sometimes can be regarded as diagnostic or evaluation process. In the previous time, the purpose of assessment was to find problems or deficits that were present in an individual, a group or a team in order to get correction, diagnosis, modification or identification, which can be called deficit-oriented assessment. Although finding the weaknesses and disadvantages is vital, it may lead to potential problems if the assessment intends only to find children's deficits which may stress the negative sides of children's behavior or functioning at the consumption of the positive sides. Moreover, if using the deficit-oriented method to identify problems rather than their strength for those children with the EBD, it may not provide important information to professionals who want to develop intervention to children with the EBD. (Esptein, Harniss, Pearson & Ryser 1999, 320.)

Based on the definition of assessment given by Salvia, Ysseldyke and Bolt (2013, 5):

> Assessment is the process of collecting information for the purpose of making these kinds of decisions about students.

From this definition, the purpose of assessment is to gather information including strengths as well as weaknesses, in which strength and weakness have the equal percentage. It is easy to understand that a person's views can be controlled based on what they are asked to do. As Kral (1989) stated, "[i]f we ask people to look for deficits, they will usually find them, and their view of the situation will be colored by this. If we ask people to look for success, they will usually find them, and their view of the situation will be colored by this" (32). Therefore, if we mainly focus on finding weaknesses of children, our concentration will be highlighted on the problems and deficits of them. Deficit-based assessment is restricted to focus on the weaknesses, which is unnecessarily limit the collected information on children's behavior, even result in a failure in getting comprehensive information about children's development, implementation and monitoring a useful service plan (Epstein et al. 2002, 286).

When it comes to assessment, generally, finding problems and pathologies has been the main aim according to a person's performance individually or in a group (Epstein, Harniss, Robbins, Wheeler, Cyrulik, Kriz & Nelson 2002, 286), which always gives people a sense of "wrong". Deficit-oriented assessment scales have been popularly used in the field of education, mental health, child welfare, juvenile justice and also other social services, which can be easily used to understand a child's status. The deficit-oriented assessment is extremely useful in finding what is wrong with a child (Epstein 1999, 258). To some extent, adults tend to focus on a child's mistakes or disadvantages, which is not beneficial to a child's growth because they may lose confidence and enthusiasm in themselves. If there is too much information concerning problems and deficits, it is easy to make people get stuck in the child or his family (Rudolph & Epstein 2000, 207).

It is essential to find appropriate tools to measure children with special needs and develop efficient special education plans. Therefore, it is vital that professionals can use accurate assessment on children including qualification, progress and when and how to develop instruction (Reid, Epstein, Pastor & Ryser 2000. 346). The assessment of the emotional and behavioral disorders is a complicated process that needs multi-faceted resources. Tools used for diagnosis include interview, behavioral checklists, rating scales, observations (Anderson 2000, 487). Recently, there are three initiatives made the assessment for children with the EBD more advanced, which include personal-centered planning, strength-based assessment and functional behavioral assessment (Gargiulo 2010, 293). However, traditional rating scales usually only focus on finding behavioral deficits of children and adolescents rather than their behavioral strengths.

3.1   Strength-Based Assessment

Compared to deficit-based assessment which maybe helps identify children who are in need but may not be helpful to plan for the treatment, strength-based assessment, on the other hand, is totally opposite to the deficit-oriented assessment. Strength-based assessment, to some extent, is a relatively new approach to measure children's behavior,

in which strength can be emotional and behavioral abilities, capabilities, or features which generate a sense of achievement for a person, the family or an organization such as a school or community.

Strength-based assessment is defined as measuring emotional and behavioral skills as well as competencies and characteristics which create a sense of personal achievement, add to satisfactory relationships with family members, peers, and adults, improve one's capability to endure and cope with adversity and stress, and promote development on a personal, social, and academic level (Epstein & Sharma 1998, 3). That is to say, strength-based assessment is an instrument to help adults find the positive emotions and behaviors of youth and adolescents. Strength-based assessment acknowledges that every child has strength, competences and resources that can be built on in developing a treatment approach even the most challenged children (Epstein 1999, 258).

There are several beliefs that the strength-based assessment is founded on (Nelson & Pearson, 1991): first, it believes that all children have strengths; if professionals focused on identifying and building upon strengths, children would get a cornerstone to overcome challenges and obstacles in the future. Second, a child is motivated by how others respond to him or her. When adults emphasize on the deficit areas, this may result in lower motivation in children; however, when adults focus on personal strengths, this may lead to heightened motivation in children. Third, failure of a child to master a skill does not mean a deficit on the part of the child; rather, it means that the child has not been given the opportunities to learn specific strengths. Given sufficient experiences, instructions and opportunities by his or her school, family or community, a child is capable of learning, therefore demonstrating much strength. At last, Individualized Education Programs (IEPs) and family service plans need to be strength based. A strength orientation assumes that when an individual's positive skills and resources are identified and supported, the individual is more likely to make use of his or her strengths and resources to achieve the goals being set up.

Strength-based assessment has attracted attention of parents and professionals such as teachers and special educators in the fields of child welfare, family services, education so on and so forth. It has been recognized that even the most challenged child have

abilities, strengths and resources to build and develop an approach for treatment (Epstein 1999, 258).

Therefore, the strength-based assessment aims to find out children's capacities, advantages, strength and skills instead of children's deficits, which provides an approach to enable children and their families through erecting on the individual strengths and properties which may often be ignored or paid minimal attention in more deficit-based methods to assessment (Rudolph & Epstein 2000, 207).

When the children and adolescents are talked, it may be common and easy for adults to talk about their problems and bad behaviors rather than their strengths and abilities. However, strength-based assessment leads to a more positive perspective for the children and adolescents who are involved in the research because it measures their strengths, thus in this way, it is easy to find the advantages of children and adolescents, and then promote their competence and advantages found in the research to make them be an expert in the certain field. On the other hand, strength-based assessment, allows for the collection of a broader range of important information related to an individual's capabilities and weaknesses (Buckley & Epstein 2004, 22).

Moreover, strength-based assessment has plenty of usage and benefits. At first, it enables the children with disorders and their family to receive specialized services in a positive way. Secondly, it emphasizes more on solutions rather than problems which makes parents or practitioner's frustration less or minimized. Additionally, it shows clearly to the children, parents or teachers what is going on well in children's life and what skills and capacities should be developed for the child. In addition, via frequent open communication, it helps establish a positive teacher-parents relationship with a strong mutual trust, cooperation, and support. Last but not least, to some extent, it empowers the family and the child to assume responsibility and duty for decisions and actions. (Epstein, Harniss, Robbins, Wheeler, Cyrulik, Kriz & Nelson 2002, 297.)

3.2   The behavioral and emotional rating scale (BERS)

Behavioral and emotional rating scale (BERS) (Epstein & Sharma, 1998) is to assess a child's behavior and emotion with strength-based assessment (Rudolph & Epstein 2000, 208), which provides a standardized and reliable tool to evaluate strengths of youth and adolescents. Five factors, *Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning,* and *Affective Strength* are included in the BERS. Currently, there are three rating scales which includes youth rating scale (YRS), parent rating scale (PRS) and teacher rating scale (TRS) in the updated BERS-2.

The BERS instrument is suggested to identify adolescent students with special needs, to develop strength-based goals and interventions in order to get improvement and to evaluate intervention outcomes (Epstein, Nelson & Hertzog 2002, 114). In addition, the BERS also has some other usages. Firstly, it can be used to identify children with mental health or special education services for those children with emotional and behavioral disorders (EBD).Secondly, the BERS can be used to find what is going on well with the child for the family or teachers. Thirdly, the BERS can be used for treatment for children with EBD especially in deciding the individual treatment plan. At last, the BERS can be used to measure the outcomes of the specialized treatment of a child or a group of children.

The original BERS was established to provide a valid and reliable instrument to measure and assess strengths, skills and capacities for children, especially school children, which also offered a useful instrument for school psychologists to measure students' emotion and behavior. The BERS, which was developed with strength-based assessment, provided psychologists a more comprehensive sense on children instead of deficit-based assessment which only give limited information on deficits and problems. (Buckley & Epstein 2004, 21.)

Although the development of strength-based assessment tools is not quite mature, but the BERS has been widely accepted as an instrument to specially measure the emotional and behavioral strength of children, which was designed in response to the paradigm shift away from the popularly used deficit-based measurement to enhance children's

strength (Buckley & Epstein 2004, 22). Additionally, the BERS has been tested to be reliable and valid that it is developed with sound psychometric properties in the US (Epstein, Cullinan, Harniss & Ryser 1999, 227; Epstein 1999, 262).

The original BERS was developed to be finished by adults (for example, teachers or parents) to rate children aged from 5 to 18. Although it has been studied to be reliable and valid enough to assess children's behavior and emotion, it still had two disadvantages, which showed that only one instrument was not enough to be a comprehensive assessment instrument (Buckley & Epstein 2004, 21). Firstly, a child or adolescent cannot evaluate himself or herself about his or her own strengths and capacities; secondly, there was no distinguished information to tell whether it was teachers or parents who responded to the BERS. (Buckley & Epstein 2004, 22.) Under this kind of situation, the original BERS was rewritten to add a youth version and a parent version respectively and the new edition of the BERS was named BERS-2 which includes three versions of instrument: youth rating scale, parent rating scale and teacher rating scale (Epstein, 2004). From the three versions of rating scale, it is easy to get a full picture of a child's behavior and emotion. Knowing children's own opinions on their skills and strengths can increase evaluator's ability to use information about strengths efficiently to develop the intervention. What's more, the parent and teacher version could provide multiple perspectives on children and they can also offer to professionals a useful instrument to collect information on teacher as well as parents.

There are several significant implications of the BERS-2 for special education. Firstly, it provides a constructive and understandable communication for students, families and educators. When evaluate children's emotion and behavior strength rather than disadvantages, educators and parents can pay more attention on the positive aspects existed in the children's behavior and emotion rather than only concentrate on how to eradicate the deficits of the children. Moreover, when focusing on the capabilities or what children can do well, it will help establish a positive parent-teacher-children relationship. Secondly, it makes it easier to make individualized education plan and treatment plan after identification. The BERS-2 makes it easier to get information on what children are good at, like and dislike, and to whom the children are close, in

addition, the Youth Rating Scale makes it possible that educators and teachers can know how the children think about themselves, what they are good at in their own opinion. Therefore, the BERS-2 provides a comprehensive assessment on children's emotion and behavior with multi-facet informants: what strengths the children have and what should be improved and strengthened, which can be a quite clear hint for making educational plan and designing intervention. Furthermore, the person who has a close relationship with the kid in children's own opinion such as mother can play an important role in the intervention. Thirdly, it can help to monitor intervention result and improvement. The aim of intervention is to enhance the emotional and behavioral strength and competences, and to improve the problematic emotion and behavior, thus the BERS-2 can be used to address the changes in the process of intervention. (Buckley & Epstein 2004, 25-26.)

4   INTEGRATED INVOLVEMENT AMONG PARENTS, TEACHERS AND COMMUNITY

Research has shown that it is necessary for parents to involve in the promotion of children's success in schools (Bloom 1985; Lareau 1989), since parents and teachers share the common goal to educate the child into a person who can fit the society well. It also mentioned that children are more probable to be successful in schools if there is sociocultural consistency both in schools and at home (Gaitan 1991, 21). It is important to regard parents as information resource for children since they are more familiar with children's behavior, while teachers are more familiar with children's social and academic information. Therefore, if teachers and parents can collaborate with each other, it will be good for children's development. There are mainly four types of cooperation in teachers, parents and children: parental involvement as cooperation for the needs of children; parental involvement as counseling of school staff in case of needs; parental involvement as support for the parents in their child-rearing responsibility; parental involvement as optional or informational service for parents.

In the process of the development of students, it has been obvious that teachers and parents doubt the competence of each other, in other words, parents may complain about their children's bad behavior in school, which may be blame to teachers from the perspective of parents while teachers may complain their students' bad behavior in the completion of their homework, which may be blame to parents in teachers' perspective (Seth & Kalin 2011, 81). Thus, under this kind of circumstance, it seems that the cooperation between teachers and parents is vital and necessary. Some teachers mentioned they believed it could be effective if they can get parental assistance, meanwhile, there were also other teachers believed if parents can involve in activities which typically belonged to teachers' responsibilities, they can achieve better professional status (Epstein 1986, 277). In the contemporary society, there is advocacy to develop and support the collaboration of care for those children with the EBD, which has been proved to be useful and effective especially for those children with serious emotional disorders (Kutash & Duchnowski 1997, 67).

Children with the EBD can impact multiple realms such as home, school, community, themselves and some other living fields, specifically, which involve in the educational, mental health, children welfare so on and so forth, but children with the EBD were usually served in a more obstructive termination of the range of educational and residential services (Epstein et al. 1994, 52). Community-based approach, to provide children with the EBD and their families mental health services, has been emerged and becoming popular (Epstein, Nelson, Polsgrove, Coutinho, Cumblad & Quinn 1993, 127). There are six main issues related to the community-based approach which include developing a system of care, definition of target population, principles of care, comprehensive needs assessment, individualized care and evaluation (Epstein et al. 1993, 129). Stroul and Friedman defined a system of care as total range of services which include mental health and other essential services such as education and child welfare structured into a matched agency which can work cooperatively to meet the manifold and altering needs of seriously emotionally disturbed children and youth (1986, 2). The definition of target population is an influential factor to develop a comprehensive community-based system of care, which was written to meet the needs of the local community. By carefully considering the needs of the children with EBD and their families, it can be easy to provide a well-designed service to the EBD children (Epstein, Cullinan, Quinn & Cumblad 1995, 56). There should be an agreement on establishing the principles of care including the aims, integration, coordination and evaluation in order to give clear instruction on the community-based program. There is a necessity to conduct a systematic and efficient assessment to serve for the needs of EBD children and their family, along with testing advantages and disadvantages of the services. EBD children and their families should also get access to the individualized services which are comprehensive services with their family involved to develop intervention and treatment. Appropriate monitoring and evaluation methods should be offered to measure the effectiveness of the system of care, in order to guarantee children with the EBD get comprehensive and best services. (Epstein et al. 1993, 130-132.)

4.1   Collaboration between teachers and parents

Schools and teachers are considered to be in a key position when it comes to furthering parental involvement and ensuring an effective exchange of information about life at school and home (Oostdam, 2009). A great many studies have confirmed that the overall involvement of parents represents a positive contribution to learning and the learning achievements of pupils (Gonzalez-DeHass, Willems & Holbein 2005, 99). Thus, that parental involvement can benefit children's learning and academic achievement (Hoover-Dempsey & Sandler 1997, 3). Scientific studies have shown that the communication between parents and their children proves to be effective in the sense of "academic socialization" (Hill & Tyson 2009, 740), when it enables a reciprocal exchange of experiences between parents and children as well as reflection of one and one's need and interests by referring to learning contents and experiences (Vogelsaenger & Wilkening 2007, 77).

Beirat für Familienfragen (2006) demonstrated the concept of an educational and child-rearing partnership, in which three aspects are mainly included: First, parental involvement means an interacted learning experience both in family and school that it is an integration with family life and learning experiences. Second, the aim of parental involvement is to get a joint support for children's development. Finally, to involve parents means to let them know some basic information about the children in school.

Studies have shown that parental involvement is related to children's motivation on learning which includes school engagement, self-regulation, intrinsic/extrinsic motivation, autonomy, goal orientation and motivation to read (Gonzalez-DeHass, Willems & Holbein 2005, 100). When parents are involved, students are more concentrated, make more effort, and pay more attention (Gonzalez-DeHass, Willems & Holbein 2005, 117). When parents are engaged in helping children with academic activities at home, it can be apparent to see the bridge between school and home. In addition, parents can also communicate with their children's teacher about the kids' behavior and vice versa, in which both sides can understand the children better, which could be beneficial to the growth of the children. Parental involvement can benefit children's development in the aspects that children may be more confident in school and

more motivated with involving in parents. In addition, parents who get to know teachers better more have a better understanding on the goals that teachers set up on the children. (Grolnick & Slowiaczek 1994, 249.)

The necessity to build the successful cooperation between teachers and parents is to build a positive mutual relationship between them, in which mutual respect and acceptance of the individual differences, interests and needs of different groups of parents are inevitable presupposes (Seth & Kalin, 2011, 86). Hornby (2000) points out the main factors of partnership includes: two-way communication; mutual support; common decision-making; encouraging learning. A good parent–school partnership is one that takes account of these basic needs: firstly, there is the need for relationships between team members, parents and children featured by a sense of 'belonging' and safety. Secondly, team members, parents and children are seeing themselves as competent, having a grip on the world around them and controlling matters and events in which they are directly involved. Thirdly, it concerns autonomy: decision making and acting on own initiative. Last but not least, mutual trust and equality is essential in building the cooperation between teachers and parents.

Moreover, for those students with special needs, the cooperation between parents and educators are more important, as some professionals include educators think that parents should be responsible for children with problematic behaviors and their behavioral and emotional disorders. Thus, if there is effective program that can involve parents together with teachers to develop intervention for children with special needs, it will be more efficient compared to only blaming parents. (Gargiulo 2010, 312.) There is a need to form a collaborative team with parent, teacher and special education professional, which can benefit to the intervention for those children with the EBD (Forness, Kavale, MacMillan, Assrnow & Duncan 1996, 230). In order to get a good early intervention outcome, it seems that two types of parental training are needed. Firstly, there is a need to provide a parent curriculum which can help stimulate appendage and engagement to school. Secondly, another type of training is to teach parents some knowledge on how to reach the occurrence of child indications and enhance the interaction between parent and child (Forness et al. 1996, 234). It is necessary to involve parents in planning and implementing intervention on children

with the EBD, which was proved to be effective, and successful (Kutash, Duchnowski, Sumi, Dudo & Harris 2002, 105). Effective parents are of significance to the prevention of youth problems, in which a lot of severe adolescent problems can be lessened or eradicated by early intervention to improve parenting and family systems dynamics from birth to teenager (Kumpfer & Alvarado 2003, 458).

4.2 A community-based approach for children with the EBD

Emotion and behavior disordered children and youth need different types of services which include education, mental health care, children welfare, juvenile justice and so on (Nelson & Pearson 1991, 1). Thus, there is need to build an integrated service for those children with emotional and behavioral disorders. In tradition, there were school-based collaborative services which include special educators, regular educators, school psychologist and other school staff to form a consultation team (Nelson & Pearson 1991, 29). However, little attention was paid to those professionals who may work in the same case. Thus, in order to work collaboratively efficient, professionals involved in the same case should consider also from another perspective (Nelson & Pearson 1991, 30). A comprehensive, collaborative community-based system of services and support should be provided to those emotion and behavior disordered children in order to solve some problems such as limited availability of services, a lack of collaborative practices (Epstein et al. 1993, 127). Due to the high cost of the treatment for children with the EBD as well as their family not only from the perspective of finance but also the society, it is necessary to build a community-based setting (Epstein et al. 1993, 129).

It has been apparent that special educators as well as mental health professionals think about not only the underindentification of children with emotional and behavioral disorders, but also consider the coordination of treatment to them, which should involve families and other support agencies rather than only schools (Forness 1988, 127). It is said that many parents were lack of knowledge and skills on how to meet up the needs of the emotion and behavior disordered children, which may result in the rarely being regarded as partnership in treatment for their problematic children; moreover, the parent

of children with serious emotion problems are not actively involved in planning or treating the EBD, or they are less involved than the families of children with other problems (Forness 1988, 128). There is advocacy to call for educators, professionals and families to work together on children with the EBD. Therefore, parental empowerment to support family in community settings and help parent get acquaintance with those knowledge and skills are vital. A sense of cooperation which is towards the same goal and aim to improve services to children with the EBD is highly valued. (Forness 1988, 132.) It is important to build a system that involves families into caring for children with the EBD in order to establish service capacity and strengthen community (Anderson 2000, 492). Due to the collaboration between parents and teachers, it is possible to enhance academic and social functioning for those children with slight emotional and behavioral problems; however, for those children with severe EBD, they may need more and further intervention or treatment (Forness et al. 1996, 235).

There are two values to be considered when it comes to the system of care to children with the EBD: one is child-centered which means to meet the needs of the child and its family; another value is community-based. In the previous time, there were only limited services to those EBD children including the services from hospitals and training schools; however, it has been popular to serve children in a community-based agency. (Stroul & Friedman 1986, 16.) Community-based approach includes prevention, identification and early intervention, assessment, home-based care and therapeutic care (Jacobs 1990, 18; Stroul & Friedman 1986, 46), which is important not only as a controlling and managing system but also an actual service. Community-based approach makes it possible to provide service coordination mechanism, placement and the source at a community level, which motivated communities flexible and make decisions to serve to the youth (Stroul & Friedman 1986, 18).

However, contemporary comprehensive community-based services for those with disordered emotion and behavior have been inadequate (Nelson & Pearson 1991, 1). Children are not served with what is most suitable to their needs, due to the lack of treatment services which could let children remain in their own community (Nelson &

Pearson 1991, 3). Johnson (1989) made a summary on supporting community-based intervention for children with the EBD: there was pressure from many aspects such as clients, families and economy. Moreover, there was a need to lessen replication of services and to establish comprehensive services or redistribute services existed. Furthermore, there were many planning organizations and funding centers. Last but not least, a much stronger reason to set up community-based service is to make it more accessible to those who have EBD.

It is not only an appropriate approach to deliver services to those children with EBD to establish an integrated collaboration, but it is necessary and essential. The main aims to set up a community-based collaborative agency is to provide the EBD children a qualified life and mental health support to them in the communities they belong to; to use resources from community more effectively and efficiently; and to reduce or avoid the costly and unnecessary services (Nelson & Pearson 1991, 75).

5 RESEARCH QUESTIONS

Behavioral and Emotional Rating Scale (BERS-2) has been widely used internationally and it has been proved valid and reliable (Epstein, Hertzog & Reid, 2001; Epstein, Mooney, Ryser & Pierce, 2004; Lappalainen, Savolainen, Kuorelahti & Epstein, 2009). This pilot study investigated the construct validity and reliability of the BERS-2 when it was translated in Chinese and the psychometric properties needed to be checked again. Thus, there were several questions to be studied.

The research questions in this study are:

1. What is the reliability and construct validity of the BERS-2 in Chinese school context?

2. To what extent do youth, parent and teacher evaluations match in Chinese school context?

3. What kind of differences are there between boys and girls in the five strength areas according to youth, parents and teachers?

6   METHODOLOGY

This research was studied with quantitative method. Although this research was only a pilot study to assess the reliability and validity of a Chinese version of the Behavioral and Emotional Rating Scale-2 (BERS-2), the real aim of the study was to find the strengths of children and try to use the cooperation between parents and schools to help children grow and develop better. A new study area needs quantitative method to give a broad picture. Additionally, questionnaire was used in this study. The reasons were as following: firstly, there were lots of participants including children, parents and teachers; secondly, questionnaire took less time than interviews which was better for a person rather than a team to do research; finally, since China is so big, questionnaire is able to do over great distances easily. In addition, reliability and validity will be studied in the results section.

6.1   Participants

The participants were students, parents and teachers. Eighty-seven student ages from 12 to 13 years old in 5th grade filled in the Youth Rating Scale of the questionnaires. There were 42 girls and 45 girls. There were 87 parents questionnaire distributed and 84 were returned. Four teachers including two head-teachers (Ban Zhu Ren) and two subject teachers, who are familiar with the students completed the teacher questionnaire regarding the 87 students. The data was collected in a primary school in Weifang, Shandong Province in China.

6.2   Instrument

Questionnaires were used in this study as the main form of the data collection. The BERS-2 (Epstein & Sharma, 1998) is composed of 52 items rated on a scale of 0 to 3 (0 = not at all like the child; 1 = not much like the child; 2 = like the child; 3 = very much

like the child). Three versions including the youth rating scale (YRS), the parent rating scale (PRS) and the teacher rating scale (TRS) formed the questionnaire. Five factors were analytically derived as subscales of emotional and behavioral strengths and an overall strength quotient is also derived from the BERS. Factor 1, *Interpersonal Strength* includes 15 items, such as "uses anger management skills", and measures the ability to control behaviors and emotions in social situations especially in communication with others. Factor 2, *Family Involvement* includes 10 items, such as "maintains positive family relationships", and measures a child's relationship with his or her family and relatives and participation in family events. Factor 3, *Intrapersonal Strength* includes 11 items, such as "identifies personal strengths", and measures the child's own point of view on her or his abilities and accomplishments. Factor 4, *School Functioning* includes 9 items, such as "attend school regularly", and measures the child's capacities at school and class tasks. Factor 5, *Affective Strength* includes 7 items, such as "shows concern for the feelings of others", and measures the competence to accept influence from others and express themselves to others. For the five factors mentioned above, the questionnaire will measure students using strength-based assessment which means trying to find the children's skills rather than their deficits.

Table 1. Subscales of 5 factors in BERS

Subscales	Items No.	Total number of items
Interpersonal Strengths	10,12,16,17,18,28,30,33,35,37,43, 44,46,49,50	15
Family Involvement	1,2,4,7,11,15,19,29,36,45	10
Intrapersonal Strengths	5,8,20,21,22,26,27,32,38,42,48	11
School Functioning	14,24,31,39,40,41,47,51,52	9
Affective Strength	3,6,9,13,23,25,34	7

Since this study was developed to investigate in Chinese school context, and there was no simplified Chinese version of BERS to be used, translating the questionnaire was necessary and vital. Thus, the official English version of the questionnaire was translated into Chinese, and the translated Chinese version was then checked by a bilingual Chinese and English speaker. During the translation process, there were some

modifications. For example, one item was adapted according to the Chinese customs. "I participate in church activities" was adapted into "I participate in family activities". Additionally, to make it easily be calculated, the choices were modified from the original 0 (not at all like you), 1 (not much like you), 2 (like you), 3 (very much like you) to 1 (disagree very much), 2 (disagree), 3 (agree), 4 (agree very much). When translating the youth version, an example was added at the very beginning to assist children's understanding of how to correctly understand scale and fill in the form. When translating the parent version, other people including grandparents, brother or sister were added at the beginning as options for who took the questionnaire alongside father, mother, father and mother together choices. The content of the parent version and teacher version are the same.

The aim of the project is to clarify reliability and validity of the BERS-2 and determine the suitability of strength-based assessment in the Chinese school-context. This study should be approved by the school first and then before collecting the data, teachers of the school as well as students themselves would be informed about the purpose of the study. All students from grade 5 were encouraged to participate in the study but not coerced. Data was collected in June of the year 2014. During one afternoon in the last session of the regular school day, the youth questionnaire was handed out to the students and was collected back after they finished filling them in. Then the parent version was delivered to students, who took them home after school and brought the completed questionnaires back the next day. Teachers who assessed the students had approximately 4 days to finish the teacher questionnaire.

All student participants were able to read and understand the questionnaires.

6.3   Ethical Issues

Ethical issues have been taken into consideration before and during the whole research process. At first, all participants were informed the purposes and aims of the research, and reached the agreement to take part in the study. Although participation was not compulsory, however, if parents were willing to participate, that should be really excellent. Furthermore, it was aslo stated that the personal information such as names

and age were included in the questionnaire, but it would be kept as secret. Additionally, the teachers were asked to supply the grade or children's performance in their main subjects (Chinese, math and English), but that information was also anonymized. Last but not least, the participants were also informed that they have their right to withdraw at any time if they want and their data will be destroyed.

6.4   Data analysis

Cronbach's alpha was used to check the reliability of the translated version the BERS-2. Reliabilities for the subscales and the overall strength index were calculated for the total sample. Then, exploratory factor analysis was used to test the validity of the BERS-2 in Chinese school context. Moreover, one way anova was used to test whether there were significant differences among three evaluators--youth, parents and teachers, and then correlation among them was analyzed to see the consistency between each two evaluators. At last, t-test was conducted contrasting the performance of boys and girls of the five strength areas in the three rating scales respectively to see whether there were significant differences between them.

7   RESULTS

7.1   Reliability and Validity of the BERS-2 in Chinese school context

Reliability. The BERS-2 and strength-based assessment have been used many times in the world which has been also studied in Finland (Lappalainen, Savolainen, Kuorelahti &Epstein, 2009). Subscales have been proven to be reliable and valid in previous studies.

In order to test the reliability from internal consistency of the translated BERS-2 in the Chinese primary school context, the Cronbach's alpha was used. The table 2 below shows the Cronbach's alphas of each rating scale:

Table 2. Reliability of the instruments

	Cronbach's alpha
Youth Rating Scale	.904
Parent Rating Scale	.936
Teacher Rating Scale	.957

Based on the Cronbach Alphas, it can be concluded that the translated BERS-2 is reliable as a whole in Chinese school context as three instruments all had high Cronbach's Alpha that higher than .60. Table 3 shows the Cronbach's alpha of different subscales in order to know the reliability of every subscale.

Table 3. Relaibaility of the subscales

Subscales	Youth	Parent	Teacher	Finnish Youth*	Finnish Parent*	Finnish Teacher*
Interpersonal Strengths (youth)	.82	.87	.92	.88	.90	.96
Family Involvement (youth)	.67	.73	.82	.81	.80	.87
Intrapersonal Strengths (youth)	.73	.76	.83	.81	.81	.89
School Functioning (youth)	.74	.77	.82	.78	.83	.89
Affective Strength (youth)	.35	.62	.78	.78	.76	.88

*Finnish data was 7-9th graders (Sointu, Savolainen, Lappalainen & Epstein 2011)

The Cronbach alphas of most subscales were acceptable since they were all above .60. *Affective Strength* in Youth Rating Scale was much lower than .60. If deleted the No. 34 which is "I express my like to others", the Cronbach alpha of *Affective Strength* can be raised to .451. After checking the finished questionnaire, most of the answers were negative, in other words, most of the answers were about disagree or disagree very much. Therefore, for the YRS, the *Affective Strength* was not reliable, which would not be analyzed, but for the PRS and the TRS, the *Affective Strength* would be analyzed. Cronbach alphas of Finnish study were a bit higher than in the Chinese data in all subscales, which may due to the fact that youth in the Finnish study who were older than the Chinese students so that they can understand each item better, but it cannot explain the lower reliability of adult respondents in the Chinese data.

The construct validity was studied using exploratory factor analysis, which produced more than the expected five subscales in the three rating scales (YRS, TRS and PRS) The number of factors (when criterion was eigenvalue > 1) for youth was 16, for parents 15, and for teachers 11. The KMO was higher for the teachers (.811) and lowest for stud4ents (.533). Bartlett's test of sphericity was acceptable (p<.001) for all groups. The loadings of exploratory factor analysis of the YRS are presented in appendix X. Scree plot analysis, however, supported the original structure of five factors, which will be presented in figure y.
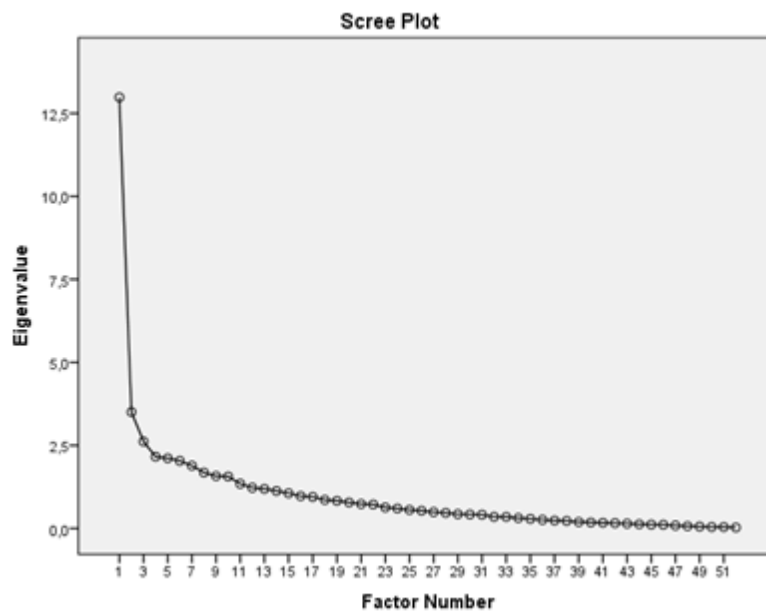
Figure y. The scree plot curve of factor numbers of YRS

Table 4. Exploratory factor analysis of YRS

	Factors				
	SF	IS	AS	FI	IaS
v39	.785				
v31	.744				
v40	.703				
v24	.673				
v41	.659				
v50	.540	(50)			
v17	.509	(17)			
v20	.508				(20)
v52	.437				
v23	.429		(23)		
v43	.413	(43)			
v36	.333			(36)	
v28		.609			
v18		.567			
v30		.541			
v22		.514			(22)
v21		.505			(21)
v14	(14)	.440			
v46		.425			
v47	(47)	-.39			
v16		.356			

v37		.323			
v27		.264			(27)
v34		.186	(34)		
v6			.545		
v42			.509		(42)
v25			.502		
v45			.450	(45)	
v49		(49)	.449		
v8			.424		(8)
v38			.423		(38)
v48			.399		(48)
v44		(44)	.395		
v32			.391		(32)
v33		(33)	.373		
v10		(10)	.326		
v4			.299	(4)	
v7				.813	
v5				.674	
v1				.672	
v29				.488	
v12		(12)		.419	
v15				.376	
v2				.214	
v3			(3)	-.20	
v11				(11)	.608
v13			(13)		.568
v35		(35)			.470
v26					.450
v19				(19)	.317
v9			(9)		.312
v51	(51)				.235

The construct validity was not empirically confirmed in this sample, which was majorly due to the small sample size (N=87). According to Everitt (1975), in order to make the exploratory factor analysis convincing, the N:p ratio should be at least 10, which meant that the sample size should be more than 500 in this study to get a satisfactory result.

However, in the analysis of the theoretical structure, the strength areas will be used for the Chinese data. As BERS-2 has been tested and shown as a valid tool (Epstein, Nordness, Nelson & Hertzog, 2002; Lappalainen, Savolainen, Kuorelahti &Epstein,

2009; Sointu, 2014), the five subscales will be used also in this study although the empirical construct validity did not support it.

7.2 Differences and consistencies among respondents

In order to see whether there were significant differences among participants in three rating scales, one way anova was used.

Table 5. Comparing the youth, parents and teachers in each strength areas

		N	mean	S.D	F	df	p	post hoc
Interpersonal	youth	87	3.19	.417	12.832	2	.000	y>p;
strength	parent	84	2.90	.449				t>p
	teacher	87	3.22	.510				(Scheffe)
Family	youth	87	3.29	.388	3.638	2	.028	y>p;
Involvement	parent	84	3.15	.411				y>t
	teacher	87	3.13	.472				(Scheffe)
Intrapersonal	youth	87	3.37	.377	17.635	2	.000	y>p;
Strength	parent	84	3.02	.404				t>p
	teacher	87	3.29	.428				(Scheffe)
School	youth	87	3.10	.436	3.671	2	.027	y>p;
Function	parent	84	2.91	.484				y>t
	teacher	87	3.05	.495				(Scheffe)
Affective	parent	84	2.86	.454	1.551	2	.214	
Strength	teacher	87	2.89	.574				Tamhane

There were no significant differences in the *Affective Strength*, but there were differences *in Interpersonal Strength, Family Involvement, Intrapersonal Strength and School Functioning*. There were significant differences between youth and parent, parent and teacher in the *Interpersonal Strength* as well as in the *Intrapersonal Strength*. However, in the *Family Involvement,* youth and teachers had significant differences. For the S*chool Functioning*, there were significant differences between youth and parents.

The relationships of strength areas between three groups were studied by correlations to find out how unanimously youth and parents, parents and teachers and finally parents and teachers evaluate the students strengths. The results will be presented in table 6.

Table 6. Correlation of youth, parent and teacher rating scales

Strength area	youth-parent correlation	youth-teacher correlation	parent-teacher correlation
Interpersonal Strength	.322	.094	.073
Family Involvement	.247	.083	-.005
Intrapersonal Strength	.404	.100	-.086
School Functioning	.531	.394	.342
Affective Strength	.184	.204	.116

The youth and their parents understand each other better than the teachers' understanding on the youth, while teachers and parents seemed to have strongest disagreements on the youth. Weak correlation between parents and teachers reveals that they do not have strong mutual understanding,

Interrelation here means that in one instrument, if all strength areas are highly interrelated, then if you have *Interpersonal Strength,* you will also good at other aspects including *Family Involvement, Intrapersonal Strength, School Functioning* and *Affective Strength*.

The interrelation within the YRS and the interrelation between teachers and parents were studied by Spearman's Correlation. The results will be showed in Table 7 and Table 8.

Table 7. Spearman correlation in YRS for boys and girls

girls boys	Interpersonal Strength	Family Involvement	Intrapersonal Strength	School Function	Affective Strength
Interpersonal Strength		.554**	**.496****	.484**	**.517****
Family Involvement	.607**		.488**	.502**	.549**
Intrapersonal Strength	**.805****	.593**		.472**	.399*
School Function	.570**	.510**	.572**		.187
Affective Strength	**.685****	.437**	.623**	.383**	

All coefficients range from .383 to .805, which meant there was interrelation within YRS no matter for girls or boys. The interrelation for boys was higher than girls, for example, *Intrapersonal Strength* was not that linked with *Interpersonal Strength* like boys. In another subscale *Affective Strength*, boys had a better relation with I*nterpersonal Strength* than girls too, which all showed that boys focused more on themselves rather than socialization.

Table 8. Spearman correlation of teacher and parent

parent teacher	Interpersonal Strength	Family Involvement	Intrapersonal Strength	School Function	Affective Strength
Interpersonal Strength		.698**	**.638****	.567**	.669**
Family Involvement	.646**		.697**	.527**	.650**

Intrapersonal Strength	.767**	.628**			.561**	.605**
School Function	.664**	.690**	.593**			**.438****
Affective Strength	**.508****	.774**	.639**	**.690****		

It is obvious to show that there was moderate to strong interrelation in teachers and parents. However, the most obvious was the correlation between *Affective Strength* and *School Functioning*, in which teachers was higher than parents that teachers may think that if students can control their feelings and emotions well, then they can be good at school performance, but it seemed that parents did not have so strong opinion.

7.3 Differences between girls and boys

In order to get the differences between girls and boys, independent t-test was conducted. The results of independent t-test are as follows:

Table 9. Student, parent and teacher comparisons of girls (42) and boys (45)

Strength area	gender	N	mean	sd	t	df	p
Student Interpersonal Strength	girl	42	3.20	.374	.316	85	.753
	boy	45	3.18	.457			
Student Family Involvement	girl	42	3.27	.351	-.559	85	.578
	boy	45	3.31	.421			
Student Intrapersonal Strength	girl	42	3.39	.343	.446	85	.657
	boy	45	3.36	.408			
Student School Function	girl	42	3.07	.472	-.555	85	.580
	boy	45	3.12	.403			
Student Affective Strength	girl	42	2.88	.333	2.74	82.748	.007
	boy	45	2.65	.422			
Parent Interpersonal Strength	girl	42	2.86	.480	-.808	82	.422
	boy	42	2.93	.418			
Parent Family Involvement	girl	42	3.05	.442	-2.22	82	.029
	boy	42	3.25	.356			

Parent Intrapersonal Strength	girl	42	2.95	.466	-1.71	82	.091
	boy	42	3.10	.318			
Parent School Functioning	girl	42	2.90	.502	-.125	82	.901
	boy	42	2.91	.470			
Parent Affective Strength	girl	42	2.77	.444	-1.84	82	.069
	boy	42	2.95	.450			
Teacher Interpersonal Strength	girl	42	3.36	.482	2.62	85	.010
	boy	45	3.08	.503			
Teacher Family Involvement	girl	42	3.27	.480	2.80	85	.006
	boy	45	3.00	.428			
Teacher Intrapersonal Strength	girl	42	3.36	.415	1.64	85	.104
	boy	45	3.21	.431			
Teacher School Functioning	girl	42	3.22	.426	3.17	85	.002
	boy	45	2.90	.509			
Teacher Affective Strength	girl	42	3.11	.554	3.70	85	.000
	boy	45	2.68	.517			

There were several significant differences between boys and girls no matter in the YRS, the PRS and the TRS.

Students. There were significant differences in *Affective Strength* between girls and boys. No significant differences were founded in other strength areas.

Parents. There were significant differences in *Family Involvement* between girls and boys. No significant differences noted in other subscales. What's more, the scores of boys were higher than girls in all subscales.

Teachers. There were no significant differences between girls and boys in *Intrapersonal Strength*, there were significant differences between girls and boys in the other four subscales including *Interpersonal Strength, Family Involvement, School Functioning and Affective Strength.* The scores, on the contrast, girls were all higher than boys.

8   DISCUSSION

Although the psychometric properties of the BERS-2 have been studied to be reliable and valid in the US and in Finland, its psychometric properties have not been tested in Chinese school context yet. The main purpose of this study was to pilot whether the BERS-2 was reliable and valid in a Chinese primary school.

8.1   Strength-based assessment in Chinese school

In this pilot study, there were several findings emerged, which was related to strength-based assessment and the BERS-2 in China.

Reliability and Validity. The major finding was that the overall Strength Index and the five subscales emerged in the sample which was studied in a Chinese primary school. Three rating scales, as a whole, were reliable in that Chinese primary school, which is similar to what were reported in America and in Finland (Epstein 2004; Lappalainen et al. 2009). However, when it comes to each subscale in every rating scale, almost every Strength Index was reliable with medium to high loadings on the Cronbach alpha values, except *Affective Strength* in the YRS. There might be several reasons that resulted in the low Cronbach alpha of *Affective Strength* in the YRS. Firstly, it might be due to the cultural difference that Chinese people are not as open as people in western countries that we do not express our love and appreciation directly to others (Potter 1988, 195). Thus, in the *Affective Strength*, it was possible that the cultural factor led to the youth answer the questions differently and they might have not understood that part similarly. Moreover, children, at the age of 11 or 12, are at a period of adolescent that is a time of rebellion (Glaster 1960, 839), which may lead them to be shy or feel it a shame to express their adorable feelings to others. At the same time, as the *Affective Strength* in TRS and PRS were reliable, it should be cultural factor and the rebellion made youth not express their love and appreciation to others directly. Except that, the relatively high

Cronbach alpha no matter in the rating scales or in the other subscales meant that the rating scales and its subscales were consistent, which meant the translated Chinese BERS-2 was consistent with what were reported in the American and the Finnish studies.

However, for the construct validity in this study, the exploratory factor analysis showed us a different structure compared to the original five factor of the BERS-2 (Epstein, 2004). The major reason for this result was the small sample size which affected the exploratory factor analysis.

Differences and consistencies among participants. It was easy to summarize that there was better understanding between youth and parents, which should be because they live together so that they know each other better. It seemed that youth and teachers understood each other less, since Chinese school system is exam-oriented, in this way, the topic between teachers and students was more likely to study, which made teachers understand students more on academic affair rather than other aspects. The weak correlation between parents and teachers meant that they did not have strong mutual understanding, which should be strengthened by promoting their cooperation. However, as there were so many students (around 43) in every class, which was also time-consuming for teachers to meet parents one by one. When they had the teacher-parent meeting, it was usually the head-teacher (Ban Zhu Ren) met with the parents of whole class before the summer holiday; they usually talked about students' study and their safety during the holiday. In the future, the relationships between teachers and parents should be strengthened.

Group differentiation. In the PRS, boys' scores were higher than girls, which may be due to the tradition that from ancient China, parents preferred males (Banister 2004, 23). However, on the other hand, girls' scores were higher than that for boys in the TRS, as was reported in the US and in Finland (Epstein & Shama, 1998; Lappalainen et al. 2009). It was reported that during teenager time, girls develop better in almost every aspect including school life, social life and learning outcomes in China (Yang 2010, translated).

8.2   Limitations and future research

There were several limitations in this study. Firstly, one clear limitation was that the sample size was small and the study was fulfilled only in one grade (fifth-grade), in one primary school in Weifang. An obvious challenge for future research is to enlarge the scope of age-group with a geographically representative sample in the study across the Chinese children and youth. In this way, it will make the translated Chinese BERS-2 more reliable and valid in Chinese school context. In addition, the small sample size does not allow the use of the exploratory factor analysis. Secondly, there was no cooperative meeting between teachers and parents in this study, thus the cooperation was only a theory rather than in practice. There is generally one teacher-parent meeting in this primary school at the end of every semester, but at that time, when I distributed the BERS-2 questionnaires in this school, it was near the end of the semester but teachers and students were preparing for the final exams which was difficult for teachers to have spare time to meet with parents. Moreover, there were so many students (around 43) in every class, which was also time-consuming for teachers to meet parents one by one. However, for the future study, if the assessment instruments can be distributed in the middle of a semester, in this way, there should be enough time for teachers to meet with parent to discuss about the situation of the child. Besides, there may also exist such phenomenon that parents did not understand the questionnaires well, which can result in the low correlation between teachers and parents. In the future study, if possible, parents should discuss the questionnaire with teachers who can explain the aim and meaning of the questionnaire to them, in order to guarantee the parents' full understanding and commitment to fill in the form. Last but not least, in the future study, there is a need to interview teachers' experiences on the usability of the BERS-2 whether it is useful or not to measure students' strengths.

8.3   Practical implications

There were some conclusions and practical implications to be made according to the results of this pilot study.

Firstly, the Behavioral and Emotional Rating Scale-2 (BERS-2) can be a part of comprehensive assessment to provide educational researchers and professionals a useful tool to measure children's behavioral and emotional strengths especially to identify those children who might need more individualized or special educational services.

Secondly, the BERS-2 can provide multi-faceted information of the development of the students, which means not only the perspective of the youth themselves, but also parents and teachers, which could offer a good platform for cooperation between teachers and parents and it could strengthen their relationship.

Thirdly, it seems that the BERS-2 can provide teachers, students and parents a new perspective to think their relationships and to broaden their perspectives that not only study is what should be valued but also the holistic view into the development of children and youth should be considered. In other words, it challenges Chinese exam-oriented education system which is being highly considered to be changed nowadays.

The BERS-2 is a promising instrument for schools and mental health workers not merely in the US as well as worldwide such as Finland and China. The strength-based assessment is an effective foundation for collecting information about behavioral and emotional strengths to promote students' well-being in educational settings in the future.

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APPENDICES

Appendix X: Original factor loadings of TRS

	Factor										
	1	2	3	4	5	6	7	8	9	10	11
t34	.834	-.042	-.063	-.146	-.077	-.105	-.037	.100	-.167	.095	-.074
t32	.821	.211	-.045	.099	.107	.022	.099	-.136	-.119	.024	-.143
t4	.783	-.041	.075	.104	-.059	.009	-.055	.242	.021	-.185	-.103
t52	.744	.051	.000	-.054	.113	.097	-.202	.128	.018	.036	-.001
t50	.716	.206	.180	.076	.276	.098	.014	.077	.087	-.099	.155
t23	.660	.044	.129	.083	.238	.019	.197	.218	-.009	.096	.125
t9	.653	.112	.275	.137	.142	.236	-.034	.050	.178	.204	.118
t25	.648	.200	.122	.145	.118	-.057	-.092	.155	.121	.094	.096
t11	.638	.228	-.065	.290	.172	.210	.120	.137	.209	-.106	.077
t21	.627	.283	.179	.094	.121	-.017	.199	-.050	-.033	.084	.003
t31	.570	.474	-.055	.098	.184	.057	.365	-.345	-.001	.115	.108
t49	.556	.213	.329	.250	-.017	.047	.329	-.078	-.085	-.021	.123
t36	.552	.053	.144	-.123	.122	.428	.018	.170	.135	.225	.004
t3	.485	.015	.325	-.035	-.233	.312	.003	-.102	.020	-.078	.155
t1	.331	-.060	-.013	-.047	.251	-.008	.024	.062	.124	-.268	.087
t28	.160	.694	.097	.258	.164	-.014	.172	.116	-.017	.006	.035
t35	.120	.682	.083	.333	.004	.059	.023	.018	.173	.063	.072

t43	-.020	.661	.335	.282	.072	.261	.104	.053	.155	.034	-.067
t33	.248	.651	.098	.114	.047	.072	-.110	-.149	.099	-.115	.122
t29	.070	.618	.426	.063	-.194	.154	.171	-.005	.044	-.092	-.104
t18	-.015	.602	.422	.231	.170	.193	.190	.064	-.027	.119	-.180
t26	.187	.597	.082	.182	.187	-.007	-.004	.135	.193	.132	.259
t37	.005	.538	.277	.104	.158	.181	.135	-.005	.359	.224	.093
t39	.454	.529	.051	.193	.332	.335	.167	-.057	-.095	.005	.046
t44	.336	.512	.343	.114	-.040	.192	-.013	.009	.167	.206	-.219
t14	.114	.504	.257	-.132	.220	.077	.076	-.224	-.083	.057	.004
t24	.327	.481	-.059	-.015	.357	.214	.204	.160	-.100	.207	.095
t30	.044	.460	.295	.185	.264	.144	.185	.130	.388	.180	.170
t16	-.058	.389	.363	.264	-.037	.088	.087	.167	.221	.366	.015
t5	-.065	.270	.726	.017	.106	.222	.404	-.191	.149	-.015	.110
t8	.082	.095	.698	.018	.032	-.031	.063	.053	.029	.165	.072
t6	.167	.251	.613	.311	.068	-.049	-.134	.010	.029	.076	-.014
t2	.370	.152	.587	.170	.055	.190	-.026	.130	.059	-.209	-.130
t42	-.028	.207	.524	.146	.089	.412	.237	-.111	.152	.165	.013
t22	-.082	.320	.498	-.066	.006	.096	.420	-.057	.167	-.111	.201
t7	.333	.248	.471	.228	.042	.101	.197	.136	-.016	-.137	.002
t38	.287	.068	.463	.223	.134	.247	-.069	.085	-.257	.157	.120
t13	.277	.239	.251	.669	.012	.110	.177	-.101	.089	.074	-.134
t10	-.147	.244	.093	.632	-.052	.105	-.023	.160	.072	-.061	.236
t12	.145	.402	.239	.631	.104	.117	.108	.097	.045	.214	.021

t46	.341	.417	.099	.508	.122	.147	.234	.049	.216	.050	-.106
t17	.242	.350	.126	.408	.125	.107	.059	.252	.027	.407	-.002
t41	.446	.342	.086	.052	.737	.019	.106	.029	.043	-.039	-.109
t40	.420	.303	.205	.078	.725	.057	.112	-.200	-.025	-.041	-.003
t15	.022	.333	.148	.256	.039	.661	.167	-.006	-.007	.018	-.027
t45	.396	.225	.209	.158	.000	.476	.003	.054	.085	.046	-.052
t20	.061	.216	.264	.259	.188	.152	.683	.032	-.043	.057	-.025
t19	.376	.125	.192	.048	.039	.082	.201	.639	.022	.081	.038
t47	.285	-.053	-.092	.121	-.066	-.028	-.152	.541	.083	.005	-.022
t51	.025	.173	.051	.094	-.008	.016	-.030	.058	.688	.007	-.047
t48	.296	.157	.345	.184	-.154	.220	.007	.018	.363	.461	.036
t27	.325	.376	.282	.151	-.088	-.063	.102	-.028	-.124	.002	.517