

Who is Your Best Friend? - The Dimensions of Quality in a Friendship Relationship

Ante Kolak, Ivan Markić and Zoran Horvat
Faculty of Humanities and Social Sciences, University of Zagreb

Abstract

The authors of this study define a relationship with a best friend as a form of interpersonal relationship between two people who are close, based on mutual attraction, respect and recognition, within which there is support and protection, intimacy, satisfaction, enjoyment in one another's company, and successful resolution of problems. The purpose of this study was to establish the dimensions of a friendship relationship and test the structure of a questionnaire examining the quality of a friendship relationship in the category of "best friend". The research was conducted via a survey method on a sample of 316 students of 5th, 6th and 7th grades of elementary school. The factor structure of the questionnaire was studied by a combination of exploratory and confirmatory factor analysis. The analysis of the questionnaire's structure resulted in a 4-factor model with 17 items that meet the recent criteria in validation of research instruments. The extracted factors indicate the importance of intimacy, use of leisure time, emphasizing the person's value and protection. According to all important indicators, the final model was shown to be methodologically reliable as a simple instrument with a potential of wide practical application in research on quality dimensions of a relationship between best friends.

Key words: *factor analysis; intimacy; leisure time; value; protection.*

Introductory thoughts

A student's need for sociability is reflected to a large extent in the interaction with other students. Their mutual friendship relationships are extremely specific and defined by disinterested goodwill, for which an important prerequisite is freedom of choice and a feeling of equality (Ninčević, 2007). The period of childhood has the key role in these relationships because it represents the beginning of long-lasting

friendships. During the period of middle childhood, children spend most of their leisure time with their peers and thereby meet their needs for intimacy, form their self-image, acquire social skills, learn to help, share and cooperate (Klarin, 2006), and express their affection and support for their friends. As an integral part of childhood, school plays an important part in this process. The school classroom is a specific stage of interaction for building friendships. In school and in classrooms, students spend increasing amounts of time with their peers, and it is extremely important for them to be accepted by them. Research into friendship is most often aimed at: establishing the qualities of friendship (Ladd, 1990; de Wied et al., 2007; Ledbetter et al., 2007), popularity (Putarek & Keresteš, 2012); the experience of friendship and behavioural correlates (Klarin et al., 2010); the role of friendship in relation to some other forms of student behaviour, such as, for example, violent behaviour (Velki & Vrdoljak, 2011); establishing friendship between students with special needs, whether students with developmental disabilities (Žic Ralić & Ljubas, 2013; Marton et al., 2015; Krampač-Grljušić & Kolak, 2018) or gifted students (Bedeković et al., 2009, Majstrovic, 2015); strategies for maintaining friendships and satisfaction with friendship relationships (Huić & Smolčić, 2015); and the social characteristics of children who establish a friendship relationship (Klarin, 2002; Trbojević & Petrović, 2014).

A “best friend” is the person in whom we have most confidence, who is prepared to cooperate, provides protection and support, and is sympathetic (Berndt, 1996, acc. to Klarin, 2006). The research shows that children without best friends (even when they have friends) show higher levels of loneliness than those who have a best friend, regardless of their social status (Parker & Asher, 1993). In addition, whilst they are with their best friend, children are happy, avoid other obligations, and want to spend as much time as possible in the company of the person who supports them. The relationship with a best friend differs from relationships with other friends and peers and parents, since these cannot meet such high demands.

The authors of this paper tried to establish the factors that influence the choice and maintenance of high quality of relationships between a student and their best friend. As the basis of approach to researching the phenomenon of friendship in the category of “best friend”, the authors of this paper defined the friendship relationship with a best friend in middle childhood as a form of interpersonal relationship between two close persons founded on mutual attraction, respect and recognition. Within this relationship, there is support and protection, intimacy, satisfaction, and enjoyment in one another’s company, expressed in spending time together, activities, fun, mutual confirmation of friendship, and successful resolution of many problems.

The quality of a friendship is difficult to assess in terms of behavioural determinants. Some of the criteria for assessing the quality of friendship may be time, that is, the duration of friendship (short-term, long-term), or the type of friendship (best friend, friend, acquaintance). Mendelson and Aboud (1999) believed that it is possible

to examine certain dimensions of the quality of a friendship relationship using a framework based on the functions of friendship (Furman & Buhrmester, 1985). After reviewing the theoretical background of various measurement instruments of friendship relationships, Mendelson and Aboud (1999) came to the conclusion that most of the scales were based either on specific behaviours (Bukowski et al., 1994; Parker & Asher, 1993; Sharabany, 1994) or on the motives for behaviour (Wright, 1978). For example, the Sharabany scale (1994) assesses eight dimensions of intimacy shared with a best friend (frankness and spontaneity, sensitivity and knowing, attachment, exclusiveness, giving and helping, imposing and taking, common activities, and trust and loyalty), whilst Wright (1978) believes that an individual sees a relationship with a friend as rewarding because that friend provides several benefits (utility, self-affirmation, ego support or stimulation). According to this functional approach (Weiss, 1974, acc. to Furman & Buhrmester, 1985), in a friendship relationship an individual experiences attachment, a reliable alliance, enhancement of self-worth, social integration, sharing advice and nurture.

On the basis of theoretical definition of a friendship relationship, analysis of research results and review of available questionnaires assessing the quality of friendship (e.g., Furman & Buhrmester, 1985; Parker & Asher, 1993; Bukowski et al., 1994, Mendelson & Aboud, 1999; Klarin, 2006), we designed a questionnaire for the needs of this study, in which we initially identified six and then five different dimensions. However, due to lack of agreement with the theoretical construct, a structure of four dimensions was found to be most appropriate. Those four dimensions comprise intimacy, leisure time, affirming other person's value (as fun and ready to help), and protection.

Intimacy relates to closeness, which includes open and sincere expression of thoughts and feelings, including self-revelation. Developing intimacy between friends requires the process of self-revelation. We share our thoughts, emotions, fears, hopes and desires when opening up and revealing ourselves to a friend. We do this to be understood and accepted. Precisely this aspect is what protects us from the feeling of loneliness. Namely, loneliness is a product of not feeling understood. If the relationship is good enough, both friends have the feeling that the other understands them. Various obstacles or some external factors are reasons for which intimacy development is sometimes hindered in a friendship relationship. There are also some negative aspects of self-revelation in friendship relationships. As we open up and reveal ourselves, we may as well show characteristics and features which are not desirable, and there is a risk that the friend will reject us. Regardless of the risk, self-revelation is the key to intimacy's development. The feeling of trust is closely linked to self-revelation, and it develops at a different pace in different friendships. For trust to grow, friends must be sure that the other party will not abuse their weaknesses, deliberately hurt or lie to them.

Leisure time is a dimension relating to spending time together and the involvement in activities that are freely chosen after completing school work and daily tasks. As a

result of their research into leisure time of young people around the world, Larson and Verma (in Irby & Tolman, 2002) distinguished three main questions: How much leisure time do young people have; What do they do in their leisure time; and Who do they spend it with? They concluded that culture determines the way young people use their leisure time. So, for example, in non-industrialized societies they spend most leisure time within their family and home, whilst in post-industrial societies young people mainly spend their leisure time with their peers. Hartup and Stevens (1997, in Klarin, 2004) state that children spend as much as 29 % of their overall leisure time weekly with their peers. In the Republic of Croatia, young people spend 34 % of their leisure time with their peers, and 71 % of their leisure time is defined by self-organized/unstructured activities. In spending time with friends, young people state that leisure time is when they can be what they truly are, a time of no demands or limitations imposed beyond their mutual expectations and agreements, a time when they can relax and express their true identity. Mutual values in socialising are a prerequisite for expressing one's own identity. Ropuš-Pavel (1999) states that shared values in socializing relate to fun, trust, understanding, help, humour, reconciliation or, for example, simply passing time, wherein young people have the opportunity to express themselves.

Affirmation of a person's value is when a friend is described as a fun person in whose company it is interesting and relaxing, and who is always ready to help. In interpersonal friendships, affirmation of a person's value comprises a separate dimension. Quality friendship presumes the possibility, desire and need to affirm the value and importance of the chosen friend. A friendship relationship is supported by people who are loyal, faithful, sincere, caring, unselfish, responsible, interesting, relaxed and fun. These characteristics of a friend are in line with the general human values pointed out by Vukasović (2003): love, well-being, philanthropy, freedom, justice, peace, understanding and tolerance. By combining several of these definitions, we can say that these values are not only a starting point but also motivators of activity and guiding principles we recognize in an individual's behaviour (in our case, a friend) and our judgement about them (Lewin, 1952, in Visković, 2013).

Protection implies demonstrating concern and defence in threatening situations. Social support in a friendship relationship can be divided into three levels. It represents the support an individual receives from the community on the macro level, whilst on the meso- and micro-levels, it is the support an individual receives from close friends and their personal perception of that attachment relationship (Klarin, 2004). All these three levels are extremely important for evaluation of an individual's value and satisfaction within social relationships. There are many classifications of social support (Cunningham & Barbee, 2000; Mitchell & Trickett 1980; Barrera & Ainley 1983; Cohen & Willis 1985; Richman et al., 1998) of which we specifically mention instrumental, which relates to knowledge of specific help and the readiness of a person/friend to help when necessary and when expected, for example, in resolving problems.

Methods

The aim of this research was to create a standardised questionnaire according to recent methodological and statistical standards, within the framework of theoretical outset for research into quality dimensions of relationships between best friends. In doing so, we used theoretically based methods in testing the research construct's validity and more recent criteria in conducting factor analysis in the phase evaluation and further development of the research instrument.

In the process of validation of the research instrument, the relevant factor structure of the questionnaire was tested by a combination (multiple application) of exploratory and confirmatory factor analysis, and the associated modifications of the initial model of the research instrument. The emphasis was on establishing dimensionality and structural validity of the instrument. Confirmatory factor analysis and structural equation modelling were performed using the AMOS computer program (*Analysis of Moment Structure*, version 25.0), whilst multiple regression, principle component analysis and other procedures were conducted in SPSS (*Statistical Package for the Social Sciences*, version 25.0). The questionnaire used in this research was based on a Likert scale of five degrees, from 1 (I do not agree at all) to 5 (I completely agree). Of the total sample of 316 students of 5th, 6th and 7th grades of elementary school, 147 (47.1 %) were boys, and 165 (52.9 %) were girls. One hundred and seven students were in 5th grade, 108 in 6th grade and 97 in 7th grade. The ratio of subjects and variables in the final model met the set criteria of 10:1 (Bentler & Chou, 1987), as did the total number of completed questionnaires necessary for multivariant analysis (Hair et al., 1998).

General methodological approach

Structural equation modelling (SEM) comprises a number of statistical modelling techniques which are well-represented in the social sciences and are gradually becoming the standard qualities in research methodology (Hooper et al., 2008). When validating a research instrument, SEM is conducted using a combination of exploratory and confirmatory factor analyses and multiple regression (Ullman, 2001).

The use of exploratory (EFA) and confirmatory (CFA) factor analyses is implied when implementing factor analysis (Jennrich & Bentler, 2011). Confirmatory factor analysis tests whether the factor model is able to predict the structure of the data observed within the given research instrument (DeCoster, 1998), whilst exploratory factor analysis (EFA) is used in the initial steps of research analysis (Tabachnik & Fidell, 2001). Factors or components are extracted when there is high factor loading on the same factor and at the same time low loading on other factors (Hair et al., 1998).

Theoretically based methods are used in CFA to test the validity of the construct itself (Aluja et al., 2003). Furthermore, CFA is deemed to be a more advanced method than EFA, which is seen most in the instrument's development and refinement regarding factor structure and testing the theoretical model (Kline, 2005; Munro, 2005). Munro (2005) also points out that CFA may follow EFA, and so these approaches are mutually complementary. Accordingly, in the quantitative part of methodology in this study, EFA was used in principal component analysis (PCA) in the development and determination

of the hypothesis, and CFA in its confirmation. The whole procedure was repeated until the evaluation of the research instrument model met relevant methodological criteria.

In CFA, the researcher may have assumptions about the number of factors, the relationship between factors and variables, and the interconnections between the variables. The validity of these assumptions is directly tested through what is known as the model fit. It is therefore desirable for the model to fit as well as possible, that is, for it to be the best possible fit. Several theoretical models, which emerge from some type of exploratory factor analysis, may exist at the same time at a certain level of statistical significance. The various models stemming from those data can be tested and evaluated via fit indices. The fit of the index, that is, the fit of the hypothetical model can be divided into four groups of indices that are so tested: absolute, relative, non-central and parsimonious fit index (Hu & Bentler, 1999; Kline, 2016). Absolute fit indices are: CMIN/DF-hi-square, GFI-goodness of fit index, AGFI-adjusted goodness of fit index, RMR-root mean-square residual, SRMR-standardized root mean-square residual) (acc. to Newsom, 2018). Relative fit indices are: IFI-incremental fit index, TLI-

Table 1
Goodness-of-fit indices

| Indices in the model | Optimal/recommended values | Authors |
|----------------------|----------------------------|---|
| CMIN/DF | < 5 | Hu and Bentler (1999); Hair et al. (1998) |
| | ≤ 2 | Tabachnik and Fidell (2001); Ullman, (2001) |
| RMSEA | ≤ 0,07 | Stieger (2007) |
| | < 0.08 | Hair et al. (1998); Hu and Bentler (1999) |
| SRMR | ≤ 0,08 | Hu and Bentler (1999); Brown (2006) |
| NFI | ≥ 0,9 | Hu and Bentler (1999) |
| PCLOSE | > 0.05 | |
| RFI | > 0.9 | Hu and Bentler (1995) |
| TLI | > 0.95 | Tucker and Lewis (1973) |
| IFI | > 0.95 | Hu and Bentler (1995) |
| CFI | > 0.9 acceptable | Hu and Bentler (1999); Hair et al. (1998); |
| | > 0.95 excellent | |
| GFI | > 0.9 | Hair et al. (1998); Hoyle (1995) |
| | ≥ 0.85 | Cole (1987) |
| AGFI | > 0.9 | Hair et al. (1998); |
| | > 0.8 | Chin and Todd (1995) |
| PGFI | > 0.5 | Mulaik et al. (1989) |
| PNFI | > 0.5 | |
| PCFI | > 0.5 | |

Tucker-Lewis index, NFI-normed fit index, RFI-relative index fit (Hu & Bentler, 1999).

The non-central indices that will be shown are: RMSEA-root mean-square error of approximation, CFI-comparative fit index, PCLOSE-a p-value that is a form of derivative of the RMSEA index, and confirmed at the statistically significance level of 0.05. The fourth group of indices of fit comprises the parsimonious indices PGFI, PNFI, PNFI2 and PCFI (Mulaik et al., 1989). The parsimony criterion relates to the requirement to explain as many variables as possible using the smallest number of latent variables possible, in the simplest structure possible, in the context of the dimensions and total number of variables. Most researchers and experts in methodology (Thurstone, 1947; Cattell, 1978; Kline, 2002) stress the importance of simplicity of questionnaires' structure, which is necessary when validating research instruments, whilst Cattell (1978) also states that it is difficult to consider research results as relevant when simplicity was not achieved.

Table 1 shows the recommended index values for testing the model's fit for factor analysis, which we will present in the stages of the research questionnaire's modification.

The stages in the development and verification of the instrument

The first step in the analysis of the results was the main components analysis, with the initial questionnaire of 58 items reduced to a model of 5 factors (components) and 49 items with high acceptability and reliability indices (Cronbach's Alpha 0.96), while the values of Cronbach's Alpha coefficient were between 0.82 and 0.9 for individual factors. In line with this, we used principle component analysis (PCA) in order to reduce the number of variables, retain as much variance as possible from the initial, given instrument, and confirm the dimensionality of the instrument. In general, when determining dimensionality, methods with eigenvalues greater than 1 are suggested (Hair et al., 1998), along with the principle of determining inflexion points on a Scree Plot. However, many simulation studies have shown that these estimates are often incorrect (e.g. Zwick & Velicer, 1986).

In determining the number of factors, the following criteria were evaluated:

- the eigenvalue of unit vectors;
- the inflexion point on the Scree Plot;
- Monte Carlo - parallel analysis (Watkins, 2000; Velicer et al., 2000).

Although Monte Carlo parallel analyses were proven quite accurate in any test model in the process of model respecification, they are primarily considered as a framework for establishing a structure supported by theoretical starting points with reliability¹.

The initial instrument was reduced to a 4-factor model of 17 items by confirmatory factor analysis and modelling of structural equations. In the final model, M_7 , it was shown that the established eigenvalues were also consistent with the parallel analysis.

Four factors from the final model explain 68 % of the variance of the tested friendship relationships between students. The Kaiser-Meyer-Olkin test (KMO=0.92) and Bartlett's

¹ The results of the Monte Carlo parallel analysis and comparison with other criteria in determining the dimensionality of the questionnaire may be seen upon request.

test of flatness confirmed that the data were appropriate for factorization. Bartlett's test is important in this research because it confirmed that a sufficient quantity of equal variance remained in the reduced factor model. In the exploratory part of the analysis of the final model, it was established by main components analysis that none of the other items had factor loading greater than 0.38 on some other factor. In each analysis, exploratory factor analysis was used by the principal components method, with oblique rotation, because many significant correlations were expected between factors (Costello & Osborne, 2005). This also proved to be consistent with both Oblimin and Promax rotation. The established Pearson correlation coefficients are statistically significant in range from 0.3 to 0.5 between all the factors. In terms of the correlation's strength, a moderate correlation was found between all factors (Evans, 1996), which was confirmed by using oblique rotation of the extracted eigenvectors. From the initial model, M_1 , six more models were tested, which were simultaneously analysed by CFA with the principle component method to establish dimensionality, the proportion of variance, and internal consistency; and to evaluate factor loading, the communality of variables, and the index of fit. This led to the final model, M_7 , which met the given criteria (Table 2) and was aligned with theoretical starting points of research into the quality of relationships between best friends.

Table 2
Stages in the evaluation and reconceptualization of the model

| Indices in the model | Recommended values | M_1 | M_2 | M_3 | M_4 | M_5 | M_6 | M_7 |
|----------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
| CMIN/DF | < 5 | 2.26 | 2.13 | 2.01 | 1.84 | 1.95 | 1.73 | 1.93 |
| | ≤ 2 | | | | | | | |
| RMSEA | ≤ 0.7 | 0.07 | 0.06 | 0.06 | 0.05 | 0.06 | 0.5 | 0.05 |
| | < 0.08 | | | | | | | |
| SRMR | ≤ 0.8 | 0.07 | 0.06 | 0.60 | 0.56 | 0.05 | 0.04 | 0.04 |
| NFI | ≥ 0.9 | 0.70 | 0.76 | 0.81 | 0.87 | 0.89 | 0.91 | 0.92 |
| PCLOSE | > 0.05 | 0.00 | 0.00 | 0.01 | 0.30 | 0.13 | 0.59 | 0.11 |
| RFI | > 0.9 | 0.69 | 0.75 | 0.79 | 0.85 | 0.87 | 0.89 | 0.90 |
| TLI | > 0.95 | 0.75 | 0.82 | 0.84 | 0.88 | 0.92 | 0.93 | 0.95 |
| IFI | > 0.95 | 0.77 | 0.86 | 0.89 | 0.93 | 0.94 | 0.96 | 0.96 |
| CFI | 0.9 < <0.95 | 0.81 | 0.86 | 0.89 | 0.93 | 0.94 | 0.96 | 0.96 |
| GFI | > 0.9 | 0.73 | 0.80 | 0.83 | 0.87 | 0.89 | 0.92 | 0.92 |
| | ≥ 0.85 | | | | | | | |
| AGFI | > 0.9 | 0.76 | 0.77 | 0.81 | 0.85 | 0.86 | 0.89 | 0.90 |
| PGFI | > 0.5 | 0.54 | 0.68 | 0.69 | 0.72 | 0.73 | 0.71 | 0.69 |
| PCFI | > 0.5 | 0.73 | 0.76 | 0.78 | 0.82 | 0.83 | 0.81 | 0.80 |
| PNFI | > 0.5 | 0.62 | 0.67 | 0.69 | 0.74 | 0.76 | 0.76 | 0.76 |

M_1 - 5 factors and 49 items, M_2 - 5 factors and 43 items, M_3 - 5 factors and 36 items, M_4 - 5 factors and 28 items, M_5 - 5 factors and 23 items, M_6 - 5 factors and 20 items, M_7 - 4 factors and 17 items.

Alongside the indices listed in the table, Akaike's information criterion index (AIC) was also evaluated for the final model. It confirmed that model M_7 was the best, in comparison with other models.

Results and discussion

The first and most important factor is "intimacy", consisting of five statements which explain 43 % of the variance of responses in establishing friendship relationships.

Table 3
Factor I: Intimacy

| Factor I: Intimacy ($\alpha = 0.85$) | | Factor loading |
|--|--|----------------|
| C5 | I know his/her secrets. | 0.82 |
| C4 | I talk to him/her about many of my feelings. | 0.81 |
| C6 | I talk to him/her about personal and intimate things. | 0.77 |
| C1 | I told him/her something about myself that I haven't told anyone else. | 0.76 |
| C7 | I can tell him/her everything I am feeling and thinking without any restraint. | 0.68 |

According to the theoretical starting points, *intimacy* emerged as a dominant dimension of relationships between friends, which is confirmed by a very high proportion of variance in establishing friendship relationships, the significant and relatively high correlation with other factors, and variables with a high factor loading in that dimension, but low on other dimensions. In evaluation of the established dimensions, it is primarily necessary to evaluate whether the statements from the obtained latent structure reflect the dimension or the construct delineated as the research problem. Since closeness and intimacy are basic constructs of interpersonal relationships, wherein closeness presumes presence, and intimacy implies self-revelation and true knowledge as parts of a friendship relationship, these statements clearly describe the construct: they make it possible to precisely delineate a level of closeness, attachment, intimacy, confidentiality, affection and other characteristics which unambiguously indicate intimacy and the degree of closeness between friends.

The dimension "*affirmation of other person's value*" is a necessary prerequisite in children and young people's social development and is described as a relationship in which people are loyal to one another, faithful, caring, sincere, responsible, interesting and fun, and therefore mutually encourage two-way positive emotional reactions. Furthermore, they give one another a feeling of value and acceptance.

The statements presented in this construct also reflect and encompass all the characteristics of this construct, as mentioned in the introductory remarks. The first three statements cover aspects of relaxation, interest and fun, which are required for pleasant feelings and are regarded as indicators of the relationship's quality. This is due to the assumption that both people find the relationship pleasant if it is full of laughter. Also, they endeavour to bring as much positive emotions to it as possible. The last two statements support the aspects of loyalty and care, which primarily appear

in the dimension of help, which is one of the basic characteristics of every friendship relationship (acc. to Buljubašić Kuzmanović, 2012).

Table 4
Affirmation of other person's value

| Factor II: Affirmation of value ($\alpha = 0.86$) | | Factor loading |
|---|---|----------------|
| F13 | It is fun to be with him/her. | 0.89 |
| A6 | We help one another. | 0.87 |
| F14 | I feel relaxed with him/her. | 0.75 |
| F12 | We laugh a lot together. | 0.71 |
| D4 | I can rely on him/her. He/she is a reliable person. | 0.51 |

The third factor is defined by only three variables, which is within the methodological framework when extracting or defining factors in the course of factor analysis. However, the most important thing is that they clearly and unambiguously define the dimension of "leisure time".

Table 5
The dimension of leisure time

| Factor III: The dimension of leisure time ($\alpha = 0.78$) | | Factor loading |
|---|--|----------------|
| F5 | We spend time together at weekends. | 0.82 |
| F6 | We spend time together during the school holidays. | 0.80 |
| F2 | We visit each other outside school. | 0.77 |

Since leisure time is defined as time of active rest, amusement, positive development and socialization and is characterised by freedom, willingness, and various aspects and characteristics of an individual's development (Previšić, 2000), the presented statements clearly summarize these aspects. Moreover, the quality of a friendship relationship examined by these items may be clearly established according to the principles of choice and willingness.

The fourth factor relates to the dimension of "protection" in a friendship relationship and is defined by a specific form of social support important in difficult and stressful life situations. They are seen as an important aspect of school-age children's socialization with their peers.

Table 6
Protection

| Factor IV: Protection ($\alpha = 0.81$) | | Factor loading |
|---|---|----------------|
| B5 | He/she is prepared to stand in my defence if necessary. | 0.82 |
| B6 | He/she defends me if someone attacks me. | 0.75 |
| B4 | I care about his/her feelings. | 0.71 |
| B9 | I show him/her how much he/she means to me. | 0.57 |

Since children in the period of middle childhood (between 8 and 14 years) are often exposed to teasing, provocation and bullying by their peers and are moreover extremely vulnerable to these forms of behaviour, this dimension of friendship relationships is

seen as a good predictor and indicator of the quality of those relationships. The group of statements that comprise this factor clearly describe the protection dimension and are quite specific and aligned with 8 to 14-year-old children who took part in this research.

Concluding remarks

The aim of this research was to test the initial version of the research questionnaire, reconceptualize the appropriate factor model according to the indices of fit and parameters of factor analysis, and conceive a practical and simple standardized questionnaire. The initial version of the instrument, from evidently high requirements of the structural modelling of equations and confirmatory factor analysis, resulted in a reduced 4-factor model with 17 items, which unequivocally describe the dimensions of quality of a friendship relationship. The factors obtained in the presented analyses confirmed the importance of intimacy, spending leisure time together, affirming other person's value, and protection in student relationships. The instrument designed for testing the friendship relationship dimensions has great potential for researchers and practitioners. Moreover, comprehensiveness of the given parameters, presented and validated, supports the dimensionality and structural validity of the instrument. The validity of the construct was also tested by regression analysis: it was established that all independent variables from the questionnaire have significant predictive properties for the established latent variables. Although high factor loading is one of the indicators of convergent validity, it can only be confirmed by testing this questionnaire on a different sample and when the final model's consistency with other instruments measuring the same focus constructs is established.

References

- Aluja A., Garcia O., & Garcia L. (2003) Psychometric properties of the Zuckerman-Kuhlman personality questionnaire (ZKPQ-III-R): A study of a shortened form. *Personality and Individual Differences* 34, 1083–1097. [https://doi.org/10.1016/S0191-8869\(02\)00097-1](https://doi.org/10.1016/S0191-8869(02)00097-1)
- Asher, S.R., & Parker, J.G. (1989). Significance of peer relationship problems in childhood, In: Schneider, Attili, B.H., G., Nade, J., & Weissberg, R.P. (eds.). *Social competence in developmental perspective*, Kluwer Academic, 5–23. https://doi.org/10.1007/978-94-009-2442-0_1
- Barrera, M., & Ainley, S.L. (1983). The structure of social support: Conceptual and empirical analysis. *Journal of Community Psychology*, 11, 133–142. [https://doi.org/10.1002/1520-6629\(198304\)11:2<133::AID-JCOP2290110207>3.0.CO;2-L](https://doi.org/10.1002/1520-6629(198304)11:2<133::AID-JCOP2290110207>3.0.CO;2-L)
- Bedečković, V., Jurčić, M., & Kolak, A. (2009). Sociometrijski status darovitog učenika i njegov položaj u društvenoj (razrednoj) eliti [Sociometric status of gifted students and its position in the social (class) elite]. In: Gojkov, G. (eds.). *Daroviti i društvena elita*. Visoka škola strukovnih studija Vršac, 80-91.
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modelling. *Sociological Methods & Research*, 16, 78-117. <https://doi.org/10.1177/0049124187016001004>

² The results of regression analysis are available upon request.

- Brown, T. (2006). *Confirmatory factor analysis for applied research: Methodology in the social sciences*. Guilford Press.
- Bukowski, W.M., Brendgen, M., & Vitaro, F. (2007). Peers and socialization: Effects on externalizing and internalizing problems. In: Grusec, J.E. & Hastings, P.D. (eds.). *Handbook of socialization: Theory and Research*. Guilford Press, 355–381.
- Buljubašić-Kuzmanović, V. (2012). Škola kao zajednica odrastanja [School as a community that fosters the process of growing up]. *Pedagogijska istraživanja*, 9, 1-2; 43-57.
- Cattell, R.B. (1978). *The scientific use of factor analysis in behavioral and life sciences*. Plenum. <https://doi.org/10.1007/978-1-4684-2262-7>
- Chin, W. W., & Todd, P. A. (1995). *On the use, usefulness and ease of structural equation modelling in MIS research: A note of caution*. *MIS Quarterly*, 19(2), 237-246. <https://doi.org/10.2307/249690>
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310-357. <https://doi.org/10.1037/0033-2909.98.2.310>
- Cole, D. A. (1987). Utility of confirmatory factor analysis in test validation research. *Journal of Consulting and Clinical Psychology*, 55, 584-594. <https://doi.org/10.1037/0022-006X.55.4.584>
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, 10, 1-9.
- Cunningham, M. R., & Barbee, A. P. (2000). Social support. In C. Hendrick & S. S. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 273-285). Sage Publications.
- de Wied, M., Branje, S.J.T., & Meeus, W.H.J. (2007). Empathy and conflict resolution in friendship relations among adolescents. *Aggressive Behavior*, 33, 48-55. <https://doi.org/10.1002/ab.20166>
- DeCoster, J. (1998). *Overview of Factor Analysis*. <http://stat-help.com>.
- Evans, J.D. (1996). *Straightforward statistics for the behavioral sciences*. Brooks/Cole Publishing.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21(6), 1016-1024. <https://doi.org/10.1037/0012-1649.21.6.1016>
- Hair, J. F., Anderson, R., Tatham, R., & Black, W. (1998). *Multivariate data analysis*, 5th Ed., Prentice Hall.
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6, 53-60.
- Hoyle, R.H. (1995). The structural equation modeling approach: Basic concepts and fundamental issues. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 1-15). Sage Publications.
- Hu, L. T., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). Sage.
- Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6 (1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Huić, A., & Smolčić, I. (2016). Strategije održavanja prijateljstva i zadovoljstvo istospolnim prijateljstvima: efekti aktera i partnera [Friendship maintenance strategies and satisfaction

- in same-sex friendships – actor-partner effects]. *Društvena istraživanja*, 25, 1, 63-83. <https://doi.org/10.5559/di.25.1.04>
- Irby, I., & Tolman, J. (2002). Rethinking leisure time: Expanding opportunities for young people and communities. The Forum for Youth Investment.
- Jennrich, R. I., & Bentler, P. M. (2011). Exploratory bi-factor analysis. *Psychometrika*, 76, 537-549. <https://doi.org/10.1007/s11336-011-9218-4>
- Klarin, M. (2002). Osjećaj usamljenosti i socijalno ponašanje djece školske dobi u kontekstu socijalne interakcije [The feeling of loneliness and social behaviour of school children in the context of social interaction]. *Ljetopis Studijskog centra socijalnog rada*, 9, 2; 249-258.
- Klarin, M. (2004). Uloga socijalne podrške vršnjaka i vršnjačkih odnosa u usamljenosti predadolescenata i adolescenata [The role of peer social support and relationships in preadolescents' and adolescents' loneliness]. *Društvena istraživanja*, 13, 6; 1081-1097.
- Klarin, M. (2006). *Razvoj djece u socijalnom kontekstu – roditelji, vršnjaci, učitelji [The development of children in a social context - parents, peers, teachers, the context of child development]*. Naklada Slap.
- Klarin, M., Proroković, A., & Šimić Šašić, S. (2010). Doživljaj prijateljstva i njegovi ponašajni korelati u adolescenata [Experience of friendship and its behavioural correlates among adolescents: Cultural and gender differences]. *Pedagogijska istraživanja*, 7, 1, 7- 22.
- Kline R. (2005). *Principles and practice of structural equation modeling* (2nd edn). Guilford Press.
- Kline, P. (2002). *An easy guide to factor analysis*. Routledge.
- Kline, R. B. (2016). *Methodology in the social sciences. Principles and practice of structural equation modeling (4th ed.)*. Guilford Press.
- Krampač-Grljušić, A., & Kolak, A. (2018). Peer relations in inclusive classes [online]. *Research in Pedagogy*, Vol. 8, No. 1, 17-35. <https://doi.org/10.17810/2015.68>
- Ladd, G.W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development*, 61, 1081 – 1100. <https://doi.org/10.1111/j.1467-8624.1990.tb02843.x>
- Ledbetter, A.M., Griffin, E., & Sparks, G.G. (2007). Forecasting “friends forever”: A longitudinal investigation of sustained closeness between best friends. *Personal Relationships*, 14, 343-350. <https://doi.org/10.1111/j.1475-6811.2007.00158.x>
- Majstrovčić, I. (2015). Sociometrijski status darovitih učenika u razrednim odjelima [Sociometric status of gifted students in the classrooms]. *Diplomski rad*. Filozofski fakultet u Zagrebu.
- Marton, I., Wiener, J., Rogers, M., & Moore, C. (2015). Friendship characteristics of children with ADHD. *Journal of Attention Disorders*, 9, 10, 872-88. <https://doi.org/10.1177/1087054712458971>
- Mendelson, M. J., & Aboud, F. E. (1999). Measuring friendship quality in late adolescents and young adults: McGill Friendship Questionnaires. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 31(2), 130-132. <https://doi.org/10.1037/h0087080>
- Mitchell, R. E., & Trickett, E. J. (1980). Task force report: Social networks as mediators of social support. An analysis of the effects and determinants of social networks. *Community Mental Health Journal*, 16(1), 27-44. <https://doi.org/10.1007/BF00780665>

- Mulaik, S.A., James, L.R., Van Alstine, J., Bennet, N., Lind, S., & Stilwell, C.D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological Bulletin*, 105 (3), 430-45. <https://doi.org/10.1037/0033-2909.105.3.430>
- Munro B. (2001). *Statistical methods for health care research*. Lippincott Williams & Wilkins.
- Munro, B. (2005). *Statistical methods for health care research* (5th ed.). Lippincott Williams & Wilkins.
- Newsom, J.T. (2018). Some clarifications and recommendations on fit indices. *Psy 523/623 Structural Equation Modeling*. Springer. <http://web.pdx.edu/~newsomj/semclass/syllabus18.pdf>
- Ninčević, M. (2007). Značenje prijateljstva u procesu sazrijevanja – kršćanski pogled [The meaning of friendship in the process of maturation - a Christian view]. *Acta Iadertina*, 4 (1), 93-113. Preuzeto s <https://hrcak.srce.hr/190053> <https://doi.org/10.15291/ai.1210>
- Parker, J.G., & Asher, S.R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feeling of loneliness and social dissatisfaction. *Developmental Psychology*, 2, 4, 611 – 621. <https://doi.org/10.1037/0012-1649.29.4.611>
- Previšić, V. (2000). Slobodno vrijeme između pedagojske teorije i odgojne prakse [Free time between pedagogical theory and educational practice]. *Napredak* 141(4), 403-410.
- Putarek, V., & Keresteš, G. (2012). Tko je popularan u ranoj adolescenciji? Povezanost percipirane popularnosti sa spolom i usamljenosti [Who is popular in early adolescence? The relationship between perceived popularity and gender and loneliness]. *Društvena istraživanja*, 21, 4, (118), 949-968. <https://doi.org/10.5559/di.21.4.07>
- Richman, J. M., Rosenfeld, L. B., & Bowen, G. L. (1998). Social support for adolescents at risk of school failure. *Social Work*, 43(4), 309-323. <https://doi.org/10.1093/sw/43.4.309>
- Ropuš-Pavel, J. (1999). Samoprezentacija mladostnikove življenske lege – pomenaktivne participacije mladostnika v procesu socijalno pedagoške dijagnoze [Self-presentation of the adolescent's life situation – meaningful participation of the adolescent in the process of social pedagogical diagnosis]. Magistarski rad. Univerza v Ljubljani, Pedagoška fakulteta.
- Sharabany, R. (1994). Continuities in the development of intimate friendships: Object relations, interpersonal, and attachment perspectives. In: Erber, R. & Gilmour, R. (eds.), *Theoretical framework for personal relationships*. Lawrence Erlbaum Associates Publishers, 157- 178.
- Steiger, J.H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences*, 42 (5), 893-98. <https://doi.org/10.1016/j.paid.2006.09.017>
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Allyn and Bacon.
- Thurstone, L. L. (1947). *Multiple factor analysis: A development and expansion of vectors of the mind*. University of Chicago.
- Trbojević, J., & Petrović, J. (2014). Socijalne karakteristike dece koja uspostavljaju prijateljske dijade [Social characteristics of children who establish friendship dyads]. *Primjenjena psihologija, Tematski broj: Postignuća učenika*, 7, 3, 493-507. <https://doi.org/10.19090/pp.2014.3.493-507>
- Tucker, L.R., & Lewis, C. (1973). *A reliability coefficient for maximum likelihood factor analysis*. *Psychometrika*, 38, 1-10. <https://doi.org/10.1007/BF02291170>

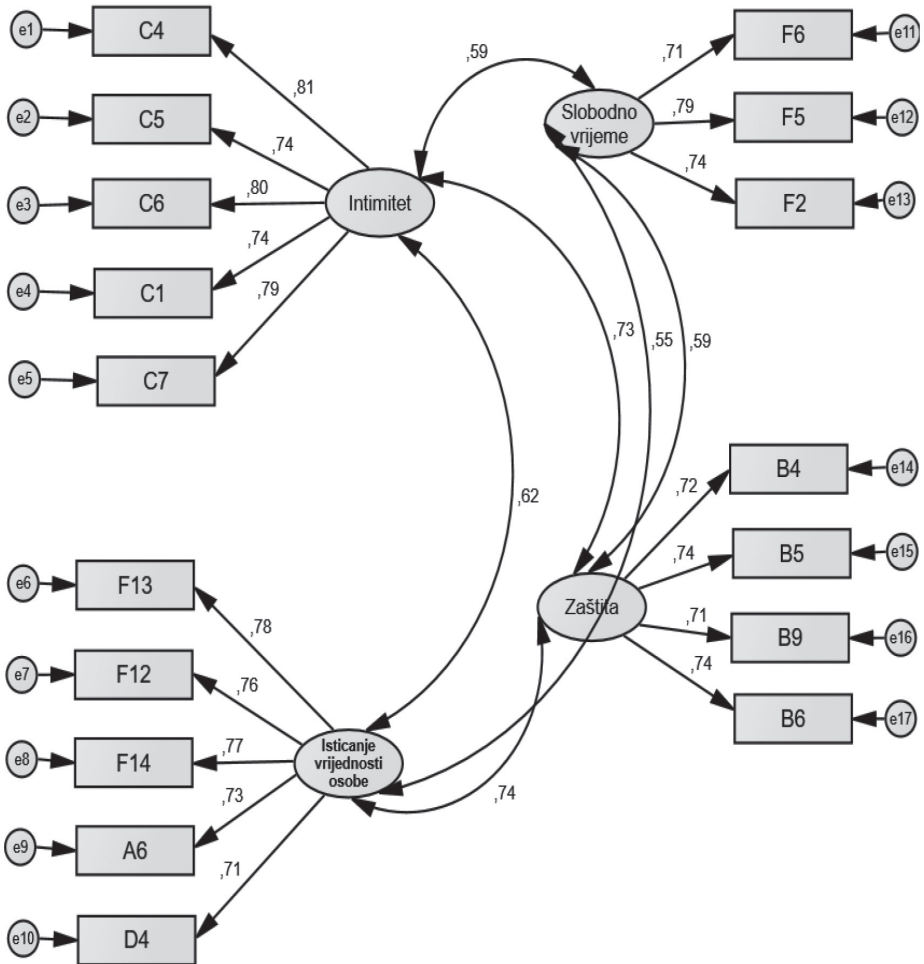
- Ullman, J. B. (2001). Structural equation modeling. In B. G. Tabachnick & L. S. Fidell (Eds). Using multivariate statistics (4th ed) (pp. 653-771). Allyn & Bacon.
- Velicer, W. F., Eaton, C. A., & Fava, J. L. (2000). Construct explication through factor or component analysis: A review and evaluation of alternative procedures for determining the number of factors or components. In R. D. Goffin & E. Helmes (Eds.), Problems and solutions in human assessment: Honoring Douglas N. Jackson at seventy (pp. 41-71). Kluwer Academic Publishers. https://doi.org/10.1007/978-1-4615-4397-8_3
- Velki, T., & Vrdoljak, G. (2012). Uloga nekih vršnjačkih i školskih varijabli u predviđanju vršnjačkoga nasilnog ponašanja [The role of some peer and school variables in prediction of peer violence]. *Društvena istraživanja*, 22, 1, 101-120. <https://doi.org/10.5559/di.22.1.06>
- Visković, I. (2013). Međugeneracijski prijenos vrijednosti s roditelja na djecu adolescente u općini Tučepi [Intergenerational transfer of values from parents to adolescent children in the Tučepi municipality]. *Školski vjesnik - časopis za pedagoška i školska pitanja*, 62: 2-3. 253-268.
- Vukasović, A. (2003). Odgojne vrijednosti i putokazi J. A. Komenskog za treće tisućljeće [J. A. Komensky's educational values and guidelines for the third millennium]. *Obnovljeni život*, 58 (1), 87-98. <https://hrcak.srce.hr/1187>
- Wright, P. H. (1978). Toward a theory of friendship based on a conception of self. *Human Communication Research*, 4. 196-207. <https://doi.org/10.1111/j.1468-2958.1978.tb00609.x>
- Zwick, W. R., & Velicer, W. F. (1986). Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*, 99, 432-442. <https://doi.org/10.1037/0033-2909.99.3.432>
- Žic Ralić, A., & Ljubas, M., (2013). Prihvaćenost i prijateljstvo djece i mladih s teškoćama u razvoju [Inclusion and friendship of children with disabilities]. *Društvena istraživanja*, 23, 3, 435-453. <https://doi.org/10.5559/di.22.3.03>

Appendixes

Appendix A. The final version - M₇

| | Factor loading |
|---|----------------|
| Factor I: Intimacy | |
| C5 I know his/her secrets. | 0.82 |
| C4 I talk to him/her about many of my feelings. | 0.81 |
| C6 I talk to him/her about personal and intimate things. | 0.77 |
| C1 I told him/her something about myself that I haven't told anyone else. | 0.76 |
| C7 I can tell him/her everything I am feeling and thinking without any restraint. | 0.68 |
| Factor II: Affirmation of value | |
| F13 It is fun to be with him/her. | 0.89 |
| A6 We help one another. | 0.87 |
| F14 I feel relaxed with him/her. | 0.75 |
| F12 We laugh a lot together. | 0.71 |
| D4 I can rely on him/her. He/she is a reliable person. | 0.51 |
| Factor III: The dimension of leisure time | |
| F5 We spend time together at weekends. | 0.82 |
| F6 We spend time together during the school holidays. | 0.80 |
| F2 We visit each other outside school. | 0.77 |
| Factor IV: Protection. | |
| B5 He/she is prepared to stand in my defence if necessary. | 0.82 |
| B6 He/she defends me if someone attacks me. | 0.75 |
| B4 I care about his/her feelings. | 0.71 |
| B9 I show him/her how much he/she means to me. | 0.57 |

Appendix B. Presentation of the final model using the graphic interface of the AMOS program)



Ante Kolak

Department of pedagogy
Faculty of Humanities and Social Sciences
University of Zagreb
Ivana Lučića 3, 10000 Zagreb, Croatia
akolak@ffzg.hr

Ivan Markić

Department of pedagogy
Faculty of Humanities and Social Sciences
University of Zagreb
Ivana Lučića 3, 10000 Zagreb, Croatia
imarkic@ffzg.hr

Zoran Horvat

Department of pedagogy
Faculty of Humanities and Social Sciences
University of Zagreb
Ivana Lučića 3, 10000 Zagreb, Croatia
zohorvat@ffzg.hr

Tko je tvoj najbolji prijatelj? - dimenzije kvalitete prijateljskoga odnosa

Sažetak

Autori ovoga rada definiraju prijateljski odnos s najboljim prijateljem kao oblik interpersonalnoga odnosa između dvije bliske osobe zasnovan na obostranoj privlačnosti, poštovanju i uvažavanju unutar kojeg dolazi do potpore i zaštite, intimiteta, zadovoljstva, uživanja u društvu i uspješnoga rješavanja problema. Svrha rada bila je utvrditi dimenzije prijateljskoga odnosa i testirati svojstva strukture upitnika kojim se ispituje kvaliteta prijateljskoga odnosa u kategoriji najbolji prijatelj. Istraživanje je provedeno na uzorku od 316 učenika 5., 6. i 7. razreda osnovne škole metodom anketiranja. Faktorska struktura upitnika istraživala se kombinacijom eksplorativne i konfirmativne faktorske analize. Analiza strukture upitnika rezultirala je 4-faktorskim modelom od 17 čestica koji ispunjava recentne kriterije u validaciji istraživačkih instrumenata. Ekstrahirani faktori ukazuju na važnost intimiteta, provođenja slobodnoga vremena, isticanja vrijednosti osobe te zaštite. Finalni se model prema svim bitnim indikatorima pokazuje kao metodološki pouzdan i za korištenje jednostavan instrument koji bi mogao imati široke praktične primjene među istraživačima i praktičarima u istraživanju dimenzija kvalitete odnosa među najboljim prijateljima.

Ključne riječi: *faktorska analiza; intimitet; slobodno vrijeme; vrijednosti; zaštita.*

Uvodna razmatranja

Učenička potreba za društvenošću u velikoj mjeri nalazi svoju refleksiju u interakciji s drugim učenicima. Njihovi međusobni prijateljski odnosi izrazito su specifični odnosi koje određuje bezinteresna dobrovoljnost za koju je važan preduvjet sloboda izbora i osjećaj ravnopravnosti (Ninčević, 2007). Razdoblje djetinjstva u ovim odnosima ima ključnu ulogu jer predstavlja početak trajnih prijateljskih odnosa. Tijekom razdoblja srednjega djetinjstva dijete većinu slobodnoga vremena provodi s vršnjacima gdje zadovoljava potrebu za intimnošću, formira sliku o sebi, stječe socijalne vještine, uči pomagati, dijeliti i surađivati (Klarin, 2006) te iskazuje prema prijateljima sviđanje i podršku. Škola kao sastavni dio djetinjstva svakog učenika igra važnu ulogu u tome. Razredni odjel unutar škole predstavlja specifičan interakcijski poligon za stvaranje

prijateljstva. U školi i razrednim odjelima učenici provode sve više vremena s vršnjacima i izrazito im je bitno da ih vršnjaci prihvaćaju. Istraživanja o prijateljstvu najčešće su usmjerena na utvrđivanje kvalitete prijateljstva (Ladd, 1990; de Wied, Branje, Meeus, 2007; Ledbetter, Griffin, Sparks, 2007), na popularnost (Putarek, Keresteš, 2012), doživljaj prijateljstva i ponašajne korelate (Klarin, Proroković, Šimić Šašić, 2010), ulogu prijateljstva na neke druge oblike ponašanja učenika kao npr. nasilno ponašanje (Velki, Vrdoljak, 2011), na utvrđivanje prijateljskih odnosa učenika s posebnim potrebama bilo da je riječ o učenicima s teškoćama u razvoju (Žić Ralić, Ljubas, 2013; Marton, Wiener, Rogers, Moore, 2015; Krumpač-Grljušić, Kolak, 2018) ili darovitim učenicima (Bedecković, Jurčić, Kolak, 2009; Majstrovic 2015), strategije održavanja prijateljstva i zadovoljstvo prijateljskim odnosom (Huić, Smolčić, 2015), socijalnim karakteristikama djece koje uspostavljaju prijateljski odnos (Klarin, 2002; Trbojević, Petrović, 2014).

Najboljim prijateljem naziva se osoba u koju imamo najviše povjerenja, koja je spremna na suradnju, pruža zaštitu i potporu te suosjeća (Berndt, 1996, prema Klarin, 2006), a istraživanja dokazuju kako djeca bez najboljih prijatelja (čak i u slučaju kada imaju prijatelje) iskazuju višu razinu usamljenosti u odnosu na one koji imaju najboljega prijatelja bez obzira na njihov socijalni status (Parker, Asher, 1993). Također, za vrijeme dok je s najboljim prijateljem, dijete pokazuje sreću, izbjegava druge obveze te želi što više vremena provesti u društvu osobe koja ga podržava. Odnos s najboljim prijateljem razlikuje se od odnosa s drugim prijateljima i vršnjacima te roditeljima budući da oni ne moraju zadovoljavati tako visoke zahtjeve.

Autori ovoga rada pokušali su utvrditi faktore koji utječu na odabir i održavanje visoke kvalitete odnosa u dijadi učenika u odnosu s najboljim prijateljem. Kao osnovu za pristup istraživanju fenomena prijateljstva u kategoriji najbolji prijatelj autori ovoga rada definiraju prijateljski odnos s najboljim prijateljem u srednjem djetinjstvu kao oblik interpersonalnoga odnosa između dvije bliske osobe zasnovan na obostranoj privlačnosti, poštovanju i uvažavanju unutar kojeg dolazi do potpore i zaštite, intimiteta, zadovoljstva i uživanja u društvu, a koji se realizira zajedničkim provođenjem vremena, aktivnostima, zabavi, obostranom potvrđivanju prijateljstva i uspješnim rješavanjem mogućih problema.

Kvalitetu prijateljskoga odnosa teško je procjenjivati u ponašajnim odrednicama. Neki od kriterija za procjenu kvalitete prijateljstva mogu biti vrijeme odnosno duljina trajanja prijateljstva (kratkotrajna, dugotrajna) ili vrste prijateljstva (najbolji prijatelj, prijatelj, poznanik). Mendelson i Aboud (1999) smatrali su da je moguće ispitati određene dimenzije kvalitete prijateljskoga odnosa pomoću okvira koji je zasnovan na funkcijama prijateljstva (Furman i Buhrmester, 1985). Pregledavajući teorijsku pozadinu različitih mjernih instrumenata o prijateljskom odnosu, Mendelson i Aboud (1999) došli su do zaključka da se većina skala temeljila ili na specifičnim ponašanjima (Bukowski, Brendgen i Vitaro, 1994; Parker i Asher, 1993; Sharabany, 1994) ili na motivima ponašanja (Wright, 1978). Na primjer, na skali Sharabanyja (1994) procjenjuje se osam dimenzija intimnosti koje se dijele s najboljim prijateljem (otvorenost i spontanost,

osjećajnost i znanje, privrženost, isključivost, davanje i dijeljenje, nametanje i uzimanje, zajedničke aktivnosti te povjerenje i odanost), dok Wright (1978) smatra da pojedinac na odnos s prijateljem gleda kao nagrađujući jer prijatelj pruža nekoliko vrijednosti (korist, samoafirmaciju, ego podršku ili stimulaciju). Prema tom funkcionalnom pristupu (Weiss, 1974; prema Furman i Buhrmester, 1985) pojedinac u prijateljskom odnosu ostvaruje privrženost, pouzdan savez, uzdizanje vrijednosti osobe, socijalnu integraciju, savjetovanje i vođenje brige o drugoj osobi.

Na tragu teorijskoga određenja prijateljskoga odnosa, analize rezultata istraživanja i pregleda dostupnih upitnika o procjeni kvalitete prijateljstva (npr., Furman i Buhrmester, 1985; Parker, Asher, 1993; Bukowski i sur., 1994; Mendelson i Aboud, 1999; Klarin, 2006) za potrebe ovoga rada konstruirali smo upitnik u kojem smo identificirali prvotno šest, a potom pet različitih dimenzija, no zbog nedostatne usuglašenosti s teorijskim konstruktima optimalnim se pokazala struktura od četiri dimenzije. Te četiri dimenzije uključuju intimitet, slobodno vrijeme, isticanje vrijednosti osobe (kao zabavne i spremne na pomoć) te zaštitu.

Intimitet se odnosi na bliskost koja uključuje otvoreno i iskreno izražavanje misli i osjećaja i uključuje samootkrivanje. Kako bi se razvio intimitet među prijateljima, nužan je proces samootvaranja. U otvaranju sebe prijatelju dijelimo naše misli, emocije, strahove, nade i želje. To radimo sa željom da nas se razumije i prihvati. Upravo je ovaj aspekt onaj koji nas štiti od osjećaja osamljenosti. Osamljenost je, naime, produkt osjećaja da nismo shvaćeni. Ako je odnos dovoljno dobar, oba prijatelja imaju osjećaj da ih druga strana razumije i on je recipročan. Ono što može onemogućiti razvijanje intimiteta u prijateljskom odnosu su različite barijere koje koče intimizaciju u prijateljstvu ili neki vanjski utjecaji. Postoje i drugi negativni aspekti otvaranja u prijateljskim odnosima. Otvaranjem možemo otkriti i one svoje osobine i karakteristike koje nisu poželjne, a u tome postoji i opasnost da će nas prijatelji odbaciti. Bez obzira na rizike, samootvaranje je ključ razvoja intimiteta. Sa samootvaranjem blisko je povezan osjećaj povjerenja. Povjerenje se u različitim prijateljskim odnosima razvija različitim tempom. Da bi do povjerenja došlo, prijatelji moraju biti sigurni da druga strana neće iskoristiti njihove slabosti, da ih neće namjerno povrijediti ili da im neće lagati.

Slobodno vrijeme podrazumijeva dimenziju koja se odnosi na zajedničko druženje i bavljenje aktivnostima po slobodnom izboru nakon izvršenih školskih zadataka i dnevnih obaveza. Larson i Verma (prema Irby i Tolman, 2002) kao posljedicu svojih istraživanja o slobodnom vremenu mladih diljem svijeta izdvojili su tri glavna pitanja: koliko slobodnoga vremena imaju mladi, što rade u slobodno vrijeme i s kime ga provode? Zaključak istraživanja je da je provođenje slobodnoga vremena mladih kulturno uvjetovano. Tako se primjerice u neindustrijskim društvima većina slobodnoga vremena provodi unutar obitelji i doma dok u postindustrijskim društvima mladi slobodno vrijeme uglavnom provode s vršnjacima. Hartup i Stevens (1997, prema Klarin 2004) navode kako djeca provode čak 29 % ukupnoga tjednog slobodnog vremena s vršnjacima. U Republici Hrvatskoj 34 % slobodnoga vremena mladi

provode s vršnjacima, a 71 % slobodnoga vremena određeno je samoorganiziranim/nestrukturiranim aktivnostima. Kada se govori o provođenju vremena s prijateljima, mladi iznose da je slobodno vrijeme prostor gdje mogu biti doista ono što jesu, prostor u kojemu ne postoje zahtjevi i ograničenja postavljeni izvan njihovih međusobnih očekivanja i dogovora, prostor gdje se mogu opustiti i izraziti svoj pravi identitet. Zajedničke vrijednosti druženja preduvjet su za izražavanje vlastita identiteta. Ropuš-Pavel (1999) navodi kako se zajedničke vrijednosti druženja mladih odnose na zabavu, povjerenje, razgovor, razumijevanje, pomoć, humor, mirenje ili primjerice puko zajedničko trošenje vremena u kojemu dobivaju priliku za samoizražavanje.

Isticanje vrijednosti osobe - prijatelja opisuju kao zabavnu osobu s kojom je opuštено i zanimljivo i koja je uvijek spremna pomoći. U interpersonalnom prijateljskom odnosu posebnu dimenziju čini isticanje vrijednosti osobe. Kvalitetno prijateljstvo podrazumijeva mogućnost, želju i potrebu isticanja vrijednosti i važnosti odabranoga prijatelja. Prijateljski odnos podržava osobe koje su odane, vjerne, iskrene, brižne, nesebične, odgovorne, zanimljive, opuštene i šaljive. Navedene osobine prijatelja u skladu su s općeljudskim vrijednostima koje ističe Vukasović (2003), a podrazumijevaju ljubav, dobrobit, čovjekoljublje, slobodu, pravdu, mir, razumijevanje i toleranciju. Objedinjujući nekoliko određenja možemo reći da su vrijednosti polazišta, motivatori aktivnosti i usmjeravajuća načela koje prepoznajemo u ponašanju pojedinca (u našem slučaju prijatelja) i formiranju sudova o njemu (Lewin, 1952, prema Visković, 2013).

Zaštita podrazumijeva iskazivanje brige i obranu u prijetećim situacijama. Socijalnu podršku u prijateljskom odnosu možemo podijeliti prema trima razinama. Na makrorazini ona predstavlja podršku koju pojedinac prima od zajednice, dok na mezo i mikrorazini ona predstavlja podršku koju pojedinac prima od bliskih prijatelja te osobnu percepciju navedenoga odnosa privrženosti (Klarin 2004). Sve tri razine iznimno su bitne za procjenu vlastite vrijednosti pojedinca i zadovoljstvo unutar socijalnih odnosa. Postoje brojne klasifikacije socijalne podrške (Cunningham, Barbee, 2000; Mitchell, Trickett 1980; Barrera, Ainley 1983; Cohen, Willis 1985; Richman, Rosenfeld, Bowen 1998) među kojima izdvajamo instrumentalnu, onu koja se odnosi na spoznaju o konkretnom pomaganju i spremnosti osobe/prijatelja da pomognu kada je to potrebno i kada se to od nje očekuje, primjerice prilikom rješavanja problema.

Metode

Cilj je ovoga istraživanja izraditi standardizirani upitnik prema recentnim metodološkim i statističkim standardima u okvirima teorijskih polazišta u istraživanjima dimenzija kvalitete odnosa među najboljim prijateljima. Pritom će se koristiti teorijski utemeljene metode ispitujući validnost istraživačkoga konstrukta te recentni kriteriji u provođenju faktorske analize u evaluaciji i daljnjem razvoju instrumenta.

U procesu validacije istraživačkoga instrumenta pripadna faktorska struktura upitnika istraživala se kombinacijom (višestrukom primjenom) eksplorativne i konfirmativne faktorske analize te popratnim modifikacijama početnoga modela istraživačkoga

instrumenta. Naglasak je pritom bio na utvrđivanju dimenzionalnosti i strukturalne validnosti instrumenta. Postupci konfirmativne faktorske analize i strukturalnoga modeliranja jednadžbi provedeni su u računalnom programu AMOS-u (*Analysis of Moment Structure*, verzija 25.0), dok su multipla regresija, analiza glavnih komponenti i ostali postupci provedeni u SPSS-u (*Statistical Package for the Social Sciences*, verzija 25.0). Upitnik korišten u ovom istraživanju temeljio se na Likertovoj ljestvici od pet stupnjeva od 1 (uopće se ne slažem) pa do 5 (u potpunosti se slažem). Od ukupnoga uzorka 316 učenika petih, šestih i sedmih razreda osnovne škole njih 147 (47,1 %) su dječaci, a 165 (52,9 %) su djevojčice. Od petih razreda sudjelovalo je 107 učenika, od šestih razreda 108 učenika, a od sedmih razreda 97 učenika. Omjer broja ispitanika i varijabli iz završnoga modela ispunjavaju zadane kriterije od 10 : 1 (Bentler i Chou, 1987), kao i ukupan broj ispunjenih anketa potrebnih za multivarijatnu analizu (Hair i sur., 1998).

Opći metodološki pristup

Strukturalno modeliranje jednadžbi (eng. *Structural equation modeling* - SEM) obuhvaća niz statističkih tehnika modeliranja koji su prilično zastupljene u društvenim znanostima te se postupno nameću kao standard kvalitete u istraživačkoj metodologiji (Hooper, Coughlan i Mullen, 2008). Pri validaciji istraživačkoga instrumenta SEM se provodi kombinacijom eksplorativne i konfirmativne faktorske analize te multiple regresije (prema Ullman, 2001).

Pri primjeni faktorske analize podrazumijeva se korištenje eksplorativne (EFA) i konfirmativne (CFA) faktorske analize¹ (Jennrich i Bentler, 2011). Konfirmativna faktorska analiza testira može li faktorski model predvidjeti strukturu promatranih podataka unutar danoga istraživačkoga instrumenta (DeCoster, 1998), dok se eksplorativna faktorska analiza (EFA) koristi u prvim koracima analize istraživanja (Tabachnik i Fidell, 2001) gdje se ekstrahiraju faktori, odnosno komponente prema visokim faktorskim opterećenjima na istom faktoru te istovremeno niskim opterećenjima na ostalim faktorima (Hair i sur., 1998).

U CFA se pritom koriste teorijski utemeljene metode ispitujući validnost samoga konstrukta (Aluja i sur., 2003), gdje se CFA smatra naprednijom metodom od EFA, što se ponajviše očituje u razvoju i doručivanju instrumenta po pitanju faktorske strukture i testiranja teorijskoga modela (Kline, 2005; Munro, 2005). Munro (2005) također ističe kako CFA može slijediti EFA i kako su ti pristupi međusobno komplementarni. Sukladno tome, u kvantitativnom dijelu metodologije ovoga rada EFA je korištena analizom glavnih komponenti (PCA)² u razvijanju i utvrđivanju hipoteze, a CFA pri potvrđivanju iste, a cijeli se postupak iterirao do faze kada je evaluacija modela istraživačkoga instrumenta ispunjavala relevantne metodološke kriterije.

¹ Eksplorativna faktorska analiza (engl. exploratory factor analysis - EFA)

Konfirmativna faktorska analiza (engl. confirmatory factor analysis - CFA)

² Analiza glavnih komponenti (engl. principal component analysis - PCA)

U CFA istraživač mora imati pretpostavke o broju faktora, vezi faktora i varijabli te međusobnoj povezanosti varijabli. Validnost tih pretpostavki izravno se testira kroz tzv. *pristajanje modela* (eng. *model fit*) pa je stoga poželjno da model što bolje pristaje, odnosno da ima što bolji „fit“. Za iste podatke istovremeno može postojati više teorijskih modela na nekoj razini statističke značajnosti koji su proizašli iz nekog tipa eksplorativne faktorske analize, a indeksima pristajanja (engl. *Index-fit indices*) mogu se ispitati i evaluirati različiti modeli proizašli iz tih podataka. Indekse *fita*, odnosno pristajanja hipotetskoga modela možemo podijeliti u četiri skupine indeksa koji se pritom ispituju: apsolutni, relativni, necentralni te parsimonični indeksi pristajanja (Hu i Bentler, 1999; Kline, 2016). Apsolutni indeksi pristajanja su: CMIN/DF - hi-kvadrat, GFI - indeks najboljega pristajanja (*goodness of fit index*), AGFI - prilagođeni indeks najboljega pristajanja (eng. *adjusted goodness of fit index*), RMR - prosječna kvadratna kovarijanca reziduala (*root mean-square residual*), SRMR - standardizirana prosječna kvadratna kovarijanca reziduala (*standardized root mean-square residual*) (prema Newsom, 2018). Relativni indeksi pristajanja su: IFI - inkrementalni indeksi pristajanja (*incremental fit index*), TLI - Tucker-Lewis indeks, NFI - normirani indeksi (*normed fit index*), RFI - relativni indeks pristajanja (*relative index fit*) (Hu i Bentler, 1999).

Necentralni indeksi koji će se prikazati su: RMSEA - mjera odstupanja modela od populacije po stupnjevima slobode (*root mean-square error of approximation*), CFI - komparativni indeks pristajanja (*comparative fit index*), PCLOSE - p-vrijednost što je svojevrсна izvedenica RMSEA indeksa te ga potvrđuje na razini statističke značajnosti 0,05. Četvrtu skupinu indeksa pristajanja čine parsimonični indeksi PGFI, PNFI, PNFI2 i PCFI (Mulaik i sur., 1989). Zahtjev parsimoničnosti odnosi se na zahtjev da se što veći broj varijabli objasni pomoću što manjega broja latentnih varijabli u što jednostavnijoj strukturi u kontekstu dimenzija i ukupnoga broja varijabli. Većina istraživača i eksperata u metodologiji (Thurstone, 1947; Cattell, 1978; Kline, 2002) ističu važnost jednostavnosti strukture upitnika koja je nužna pri validaciji istraživačkoga instrumenta, dok Cattell (1978) dodatno navodi kako je teško smatrati relevantnim rezultate istraživanja gdje jednostavnost nije postignuta.

U Tablici 1 preporučene su vrijednosti indeksa za ispitivanje pristajanja modela za faktorsku analizu koje ćemo prikazati u etapama modifikacije istraživačkoga upitnika.

Tablica 1.

Etape u razvoju i verifikaciji instrumenta

Prvi korak u analizi rezultata bila je analiza glavnih komponenti gdje se početni upitnik od 58 čestica sveo na model od 5 faktora (komponenti) i 49 čestica s visokim indeksima prihvatljivosti i pouzdanosti (Cronbachov alfa 0,96) ekstrahiranih faktora, odnosno komponenti, dok su vrijednosti *Cronbachova alfa* koeficijenta kretale od 0,82 do 0,9 za pojedine faktore. Sukladno tome, analizu glavnih komponenti (PCA) koristili smo kako bismo reducirali broj varijabli tako da se zadrži što više varijance od početno zadanoga instrumenta te utvrdili dimenzionalnost instrumenta. Pri

utvrđivanju dimenzionalnosti uglavnom se sugeriraju metode svojstvenih vrijednosti većih od 1 (Hair i sur., 1998) te princip određivanja točaka infleksije na *Scree Plotu*, no brojne su simulacijske studije pokazale kako su te procjene često pogrešne (npr. Zwick i Velicer, 1986).

Pri određivanju broja faktora evaluirani su sljedeći kriteriji:

- Svojstvene vrijednosti jediničnih vektora
- Točka infleksije na *Dijagramu svojstvenih vrijednosti* (Scree Plot)
- *Monte Carlo* - paralelna analiza (Watkins, 2000; Velicer i sur., 2000).

Iako su se *Monte Carlo* paralelne analize u procesu respecifikacije modela pokazale prilično precizne u svakom testiranom modelu, iste su primarno razmatrane kao okvir unutar kojeg možemo pouzdano utvrditi strukturu koja je potkrepljena teorijskim polazištima³.

Postupcima konfirmativne faktorske analize i modeliranjem strukturnih jednadžbi početni instrument sveden je na 4-faktorski model od 17 čestica. U finalnom modelu M_7 pokazalo se kako su utvrđene svojstvene vrijednosti bile konzistentne i s paralelnom analizom.

Četiri faktora iz finalnoga modela objašnjavaju 68 % varijance ispitivanih prijateljskih odnosa među učenicima. Kaiser-Meyer-Olkinovim testom prikladnosti (KMO = 0,92) i Bartlettovim testom spljoštenosti utvrđeno je kako su podaci prikladni za faktorizaciju. Bartlettov test u ovom je istraživanju značajan što potvrđuje kako je u reduciranom faktorskom modelu ostalo dovoljno zajedničke varijance. U eksplorativnom dijelu analize finalnoga modela analizom glavnih komponenti utvrđeno je kako ni jedna od drugih čestica nema faktorska opterećenja veća 0,38 na nekom drugom faktoru. U svakoj je analizi korištena eksplorativna faktorska analiza metodom glavnih komponenti s kosokutnom rotacijom jer se očekuju značajnije korelacije između faktora (Costello i Osborne, 2005), što se pokazalo konzistentnim i s *Oblimin* i *Promax* rotacijom. Utvrđeni Pearsonovi koeficijenti korelacije statistički su značajni u rasponu od 0,3 do 0,5 između svih faktora, a po jačini korelacija je utvrđena umjerena povezanost između svih faktora (Evans, 1996), što je potvrdilo primjenu kosokutne rotacije ekstrahiranih svojstvenih vektora. Od inicijalnoga modela M_1 testirano je još šest modela koje su uz provedbu CFA simultano analizirane metodom glavnih komponenti u utvrđivanju dimenzionalnosti, udjelu varijance i unutarnje konzistencije te evaluacijama faktorskih opterećenja, komunaliteta varijabli i indeksa pristajanja. To je dovelo do finalnoga modela M_7 koji je ispunio navedene kriterije (Tablica 2) te je usuglašen s teorijskim polazištima u istraživanjima kvalitete odnosa među najboljim prijateljima.

Tablica 2.

Uz indekse navedene u tablici za finalni model evaluirao se i AIC indeks (Akaike's information criterion) kojim je potvrđeno kako je model M_7 bolji u usporedbi s drugim modelima.

³ Uvid u rezultate *Monte Carlo* paralelne analize i usporedbe s ostalim kriterijima pri utvrđivanju dimenzionalnosti upitnika mogu se dobiti na zahtjev.

Rezultati i rasprava

Prvi i najznačajniji faktor je „Intimitet“ te se sastoji od pet tvrdnji koje objašnjavaju 43 % u varijanci odgovora u utvrđivanju prijateljskih odnosa.

Tablica 3.

Prema teorijskim polazištima *intimitet* se izdvojio kao dominantna dimenzija odnosa među prijateljima, što potvrđuje prilično visok udio varijance u utvrđivanju prijateljskih odnosa, značajne i relativno visoke korelacije s drugim faktorima te varijable koje imaju visoka faktorska opterećenja u toj dimenziji, a niska na ostalim dimenzijama. U evaluaciji utvrđenih dimenzija primarno je potrebno evaluirati odražavaju li tvrdnje iz dobivene latentne strukture dimenziju, odnosno konstrukt koji je predmet interesa u istraživačkom problemu. Kako su bliskost i intimitet temeljni konstrukti interpersonalnih odnosa u kojima je bliskost kao preduvjet koji podrazumijeva prisutnost, dok intimitet podrazumijeva specifične karakteristike prijateljskoga odnosa u kojima je nužno samootkrivanje i istinsko poznavanje, razvidno je kako navedene tvrdnje jasno opisuju taj konstrukt jer se iz njih jasno može odrediti razina prisnosti, privrženosti, bliskosti, povjerljivosti, naklonosti i drugih obilježja koje jednoznačno upućuju na intimnost i stupanj bliskosti između prijatelja.

Dimenzija „*isticanje vrijednosti osobe*“ nužan je preduvjet u socijalnom razvoju djece i mladih te se opisuje kao odnos u kojem su osobe međusobno odane, vjerne, brižne, iskrene, odgovorne, zanimljive i zabavne te stoga uzajamno potiču pozitivne emocionalne reakcije onog drugog i daju mu opći osjećaj vrijednosti i prihvaćenosti.

Tablica 4.

Istaknute tvrdnje u ovom konstrukt također odražavaju i obuhvaćaju sva obilježja ovoga konstrukta što su navedena u uvodnim razmatranjima. Prve tri tvrdnje obuhvaćaju aspekte opuštenosti, zanimljivosti i zabave što su preduvjeti ugodnih osjećaja i pokazatelj kvalitete odnosa jer se podrazumijeva da je u odnosu obilježenom smijehom objema osobama njihov odnos ugodan te nastoje unositi što više pozitivnih emocija u istoga. Zadnje dvije tvrdnje podupiru aspekte vjernosti, odanosti, brižnosti što se ponajprije nazire u dimenziji pomaganja koja je jedna od osnovnih obilježja svakog prijateljskoga odnosa (prema Buljubašić Kuzmanović, 2012) te jasno upotpunjuje ovaj konstrukt odnosa među prijateljima.

Treći faktor određuju samo tri varijable, što je unutar metodoloških okvira u ekstrakciji ili postavljanju faktora u provedbi faktorske analize, no najbitnije je da iste jasno i nedvosmisleno određuju dimenziju „slobodnoga vremena“.

Tablica 5.

Kako se slobodno vrijeme određuje kao vrijeme aktivnoga odmora, rasonode, pozitivna razvoja i socijalizacije koje je obilježeno slobodom, dobrovoljnošću te raznim aspektima i karakteristikama razvoja pojedinca (Previšić, 2000), ove tvrdnje

jasno sažimaju navedene aspekte jer se po principu izbora i dobrovoljnosti iz istih jasno može utvrditi kvaliteta odnosa između prijatelja koja se ispituje ovim česticama.

Četvrti faktor se odnosi na dimenziju „zaštite“ u prijateljskom odnosu te ga određuje specifičan oblik socijalne podrške koja je bitna u teškim i stresnim životnim situacijama, što se u djece školske dobi pokazuje veoma bitnim aspektom socijalizacije među svojim vršnjacima.

Tablica 6.

Budući da su djeca u dobi srednjega djetinjstva (između 8 i 14 godina) izložena zadirkivanju, provociranju i *bullingu* od strane svojih vršnjaka te su k tome i izuzetno ranjiva na te oblike ponašanja, ova se dimenzija prijateljskih odnosa pokazuje kao dobar prediktor i pokazatelj kvalitete tih odnosa. Sklop tvrdnji koje čine ovaj faktor jednoznačno opisuju dimenziju „zaštite“ te su prilično konkretna i prilagođena za djecu srednje školske dobi koja su sudjelovala u ovom istraživanju.

Završna razmatranja

Cilj ovoga istraživanja bio je testirati početnu verziju istraživačkoga upitnika, rekonceptualizirati pripadni faktorski model prema indeksima prikladnosti i parametrima faktorske analize te koncipirati standardizirani upitnik kojeg karakterizira jednostavnost i praktična uporabljivost. Početna inačica instrumenta je iz evidentno visokih zahtjeva strukturalnoga modeliranja jednadžbi i konfirmativne faktorske analize rezultirala reduciranim 4-faktorskim modelom od 17 čestica koji jednoznačno opisuju dimenzije kvalitete prijateljskoga odnosa. Faktorima dobivenim u prikazanim analizama potvrđena je važnost intimiteta, provođenja slobodnoga vremena, isticanja vrijednosti osobe te zaštite u odnosima među učenicima. Instrument za ispitivanje dimenzija prijateljskih odnosa ima velik potencijal za istraživače i praktičare, a prikazana i postignuta obuhvatnost prikazanih parametara podupire utvrđenu dimenzionalnost i strukturalnu validnost instrumenta. Konstruktna validnost ispitana je i regresijskom analizom gdje je utvrđeno kako sve nezavisne varijable iz upitnika imaju značajna prediktorska svojstva na utvrđenim latentnim varijablama⁴. Iako su visoka faktorska opterećenja jedan od pokazatelja konvergentne validnosti, isto se tek može potvrditi testiranjem ovoga upitnika na drugom uzorku te kada se utvrdi kako je finalni model konzistentan s drugim instrumentima kojima su ispitivane dimenzije prijateljstva i koncepti povezani sa socijalnim odnosima među djecom srednje školske dobi.

⁴ Uvid u rezultate *regresijske analize* mogu se dobiti na zahtjev.