The Preliminary Validation of the Scale „Holistic Experience of Motivation“ (HEM)

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Abstract

The aim of the study is to test the reliability and validity of the instrument Holistic Experience of Motivation - HEM that was used to examine what the foundation of holistic experience in adolescents is. Analyzing current research, theories and practices in positive psychology, it is assumed that the need for Purpose, i.e. recognition of the purpose is a common need manifested differently in different constructs of motivation.

The HEM instrument was designed after a theoretical and comparative analysis of constructs of motivation, philosophies and educational theories. HEM is measured in adolescents (age 14-15, total 50) after the intervention program (IP) in physical education that showed positive effects on intrinsic motivation, self-determination, achievement of goals, flow, thriving and mindfulness. For preliminary validation of the instrument, reliability and validity were measured by a correlation and principal component factor analysis for the case 1.5. In the final instrument of 10 variables, three factors emerged: purpose, focus, example/role-model.

Preliminary results show that the basis of HEM could be a purpose. The purpose – meaning may be a common need that is presented through different constructs of motivation in positive psychology. Different philosophical paradigms and constructs of motivation are preliminarily connected. It is shown that the purpose – meaning is of spiritual/religious nature and that is manifested through satisfying basic psychological needs of self-determination and through the realization of sparks that are markers of deep personal interests.

The results show that the HEM instrument requires an upgrade, additional validation on a larger sample, and correlation with other constructs in positive psychology. Also, they confirm that relationships have a significant role in motivation and recognition of the personal purpose.
The study proposes an IP that can cause a holistic experience of motivation, an experience of purpose. The HEM instrument and IP may contribute positively to the realization of educational, in particular value-based programs such as the Olympic Values Education Program of International Olympic Committee and through the leadership youth programs.

**Key words:** flow; intrinsic motivation; mindfulness; positive youth development; sparks.

**Introduction**

One in seven studies is related to studying the self (Standish & Saito, 2012). Physical activity is the fundamental characteristic of a human being yet it is less and less present in human life (Badić Prskalo & Matijević, 2015), and depression among youth was the most spread disease in the world in 2018. This affects negatively youth’s well-being and learning, causing delinquency, consumption of addictive substances, suicides, unhealthy diet, early pregnancy (Halldors et al., 2005; World Health Organization, 2018). At the same time, we are overflown with motivation programs. The biggest attention within Positive Youth Development (PYD) (Lerner et al., 2011) is on flow theory (Eijavec, Golub & Jurčec, 2017), mindfulness (Granovac, Lau & Willett, 2011), Maslow’s (1971) hierarchy of needs, growth mindset (Yeager & Dweck, 2012), self-determination theory (Deci & Ryan, 2001) and thriving theory (Benson & Scales, 2009). In a nutshell, we are living in the age of unclear intrinsic motivation, or, a “lack of meaning”, “unknown purpose”, “spiritual crisis” as Viktor Frankl, Erith From and D. T. Suzuki noted at the end of the 20th century.

**Literature review – towards a holistic experience of motivation**

Thriving theory shows that sparks, empowerment and relationships deepen current knowledge about the needs in SDT (autonomy, competence, relatedness) (Scales et al., 2015) and indicates additional, higher aspects of intrinsic motivation, namely spirituality/religiosity. When a person finds “spark” which is the synonym for a talent, interest, personal value, self, spirit/breath as manifestations of something higher (Benson, Scales, Syvertsen, & Roehlkepartain, 2012) he/she experiences intrinsic motivation. However, sparks are maintained and realized through empowerment – support to apply them in society for a common good - and through building mutual healthy relationships with family and all people. The studies show that education in which spirituality/religiosity is present through, sparks, empowerment, an relationships affect well-being, SDT soul needs and PYD (Scales et al., 2015; Scales, Syvertsen, Benson, Roehlkepartain & Sesma, 2014). Also, PYD studies (Yale Youth Ministry Institute,
2017; Lerner et al., 2011) show that participants devotedly practice moral, valuable and spiritual/religious behaviors (e.g., reading great books, social responsibility with a greater goal, prayer, meditation, philanthropy, etc.), recognize more easily their own sparks, they are more empowered and they have closer relationships because the atmosphere of sincerity, connectivity and trust dominates, which is key for sparks development (Scales, Benson, & Roehlkepartain, 2010). Yet, practical and devoted intrinsic religiosity (non-ideologized religiosity) contributes positively to well-being and decrease of depression (Yale Youth Ministry Institute, 2017; Plante & Sharma, 2001).

Programs based on universal values are a growing trend today, and one of them is Olympic Values Education Program, where “excellence, respect and friendship” are practiced in everyday life (Delivering OVEP Playbook, 2018), and A Mindfulness-Based Kindness Curricula (2018) whose goal is to spark empathy and compassion through mindfulness as prevention to depression. Also, PYD indicate the importance of the aspect of spirituality and religiosity that wasnegated in post-modernism. Accordingly, there is an interest in studying aspects of Philosophy of Nothingness (see Heisig, 2001; Standish & Saito, 2012), metaphysics and Perennial philosophy of traditionalist school (see Smith, 2003) that indicate spiritual cultivating methods through the connection between the body and the mind as the holistic approach in education (see Standish & Saito, 2012). They warned of the danger of post-modernist studies of spirituality without binding it to religion in a perennial sense (see Guenon (2015); Jacobsen and Husedt Jacobsen (2012)).

Bearing in mind the above mentioned, it would be worthy to educate students, actually to “ignite a spark” in them towards the recognition of meaningfulness that is inseparable from wholeness, connection of the body and the mind or spirituality in general (see scheme in Benson et al., (2012, p. 458); Yuasa, (2008)) and to register that on a measuring scale that could in a way include different definitions of motivation as one common experience. In today’s age, wholeness and meaningfulness can be ignited through education about healthy lifestyle that includes physical exercise (Suzuki, & Fitzpatrick, 2015), liberal arts (Yusuf, 2018; Adler, 1993) and cultivating techniques (Yale Youth Ministry Institute, 2017; Yuasa, 1993; Adler, 1988) along with fulfillment of developmental factors (Scales, Benson, Leffert & Blyth, 2000). Today, the most rapidly growing programs that are trying to apply a holistic approach in education are the programs of mindfulness (Schonert-Reichl & Roeser, 2016; Brown, Creswell, & Ryan, 2015), which also contribute to the development of competences for the 21st century: creativity, problem solving, critical thinking, cooperation, social responsibility, communication skills, self-regulation (compare Goleman & Davidson, 2017) and Delivering OVEP Playbook (2018), Jensen, (2005)) and fundamental dimensions of
successful growth of youth (social, psychological, behavioral, educational, professional, health, ethical, civil) (Scales et al., 2015).

Faced with plenty of different definitions of motivation and depression as the most widely spread disease of today, Holistic Experience of Motivation (HEM) was designed with an intention to register the experience of *purpose* – meaningfulness as a common denominator of motivation constructs. The study suggests that students have one need, the need for *purpose*, that is connection with something greater, non ephemeral, that ignites in student a personal motive, meaning, sense and social responsibility (Yale Youth Ministry Institute, 2017; Benson et al. 2012; Mariano & Damon, 2008). It is assumed that it is manifested in different ways and explained by different experiences, theories (sparks, flow, intrinsic motivation, mindfulness, self-determination, growth mindset) (compare Branković & Badrić, 2019).

The aim of this study is to preliminarily test the validity of the HEM questionnaire, which was used to determine the holistic experience of motivation, hypothetically the need for *purpose* as a common characteristic of different motivation constructs. HEM was designed as a result of theoretical research in the fields of philosophy and education theory, educational psychology, motivation psychology, and neuroscience with an aim to present an essential human need – the need for *the purpose* of life as spiritual characteristics (compare definitions in Benson et al., 2012, p. 545, 458 and Bugari, 2012, p. 51).

Intervention program (IP) applied in studies Branković and Hadžikadić (2017), was used for the preliminary analysis of HEM results. The studies show that the intervention program in physical education affects positively self-determination, perceived competence, flow experience, intrinsic motivation and autotelic activity, mindfulness and sparks experience (Branković & Badrić, 2019; Branković, Hadžikadić & Mijanović, 2017).

**Methods**

**Participants**

The sample of the study consisted of 74 students (40 boys – 54%, 34 girls – 46 %, average age 14.6 years old) of elementary school “Isak Samokovlja” (Sarajevo, Bosnia and Herzegovina). They were divided randomly in two groups: experimental (39 students in the initial testing and 50 in the final testing) and control (15 students in the initial testing and 20 in the final testing). The experimental group participated in the IP that lasted 10 lessons (45 days). Before and after the IP, both groups participated in testing.
Testing protocol implied completion of HEM 10 variables questionnaire/instrument that was designed specifically for this study in order to test the hypothesis of holistic/integral experience of motivation. Descriptive analysis was done on both groups (experimental and control) and both states (initial and final) while factor analysis was done only on the experimental group final state in order to ensure the external validity of the questionnaire/instrument. Beside HEM testing, self-determination, motivation, mindfulness, flow, and growth-mindset were tested on the same group and published in previous studies. Branković and Badrić (2019), Branković and Hadžikadić (2017) and Branković et al., (2017) reported positive changes on all of these tests.

**Measurement**

All variables that were considered in the study are presented through descriptive statistical parameters (M - mean, SD - standard deviation, C - median). For the validation of the instrument, attention was focused on substantial, structural and external validity (Benson, 1998).

Sensitivity of the instrument was tested by Kolmogorov-Smirnov, Shapiro-Wilk and histograms in order to test normality of distribution. Due to total number of tested participants (50) in the factor analysis, Shapiro-Wilk’s test was used beside Kolmogorov-Smirnov that is adequate for small and middle-sized samples. After insight in these results, asymmetry, tailedness and distribution modality correlation of independent variables have been done. Kaiser-Meyer-Olkin (KMO) and Bartlett test were used to measure the adequacy of the sample for factor analysis. To measure reliability general Cronbach alpha coefficient for ten variables was used, measuring the factors’ consistency. To measure coherence of the questionnaire’s variables – taken from the present literature – from the fields of a motivational and educational theory, factor analysis of the principal components was applied. Before the factor analysis, in order to test the content, a validity correlation matrix was applied. According to Pearson and Mundfrom (2010) and Winter, Dodou and Wieringa (2009), this study needed to satisfy a higher level of communality among the variables (0.6 to 0.8) due to 1:5 participants: variable proportion. An external analysis of validity was done preliminarily, according to recent studies in which the same IP and the sample were used with positive results in the fields of SDT (Branković & Badrić, 2019; Branković & Hadžikadić, 2017), motivation scale (Branković, et al. 2017), flow experience, sparks and mindfulness (Branković & Badrić, 2019).

When the structural analysis was done, another theoretical rule had to be fulfilled that states that four variables which describe one factor on the sample 50-100 participants must have an index higher that 0.6 (Pearson & Mundfrom, 2010; De Winter, Dodou...
& Wieringa, 2009) and for two variables that describe the same factor the index must be higher than 0.7 (Yong, & Pearce, 2013) in order to take variables into consideration.

The general criteria included Guttman-Keiser criteria and criteria of meaning – interpretability. In the description of factor saturation and distribution of certain instrument’s particles, Oblimin rotation with Keiser normalisation was used and appropriately interpretable results were possible to make.

**Intervention Program**

An experimental group participated in IP according to the experimental program (Branković & Badrić, 2019; Branković & Hadžikadunić, 2017; Branković et al., 2017) that based on its structure belongs to MBI (Mindfulness Based Intervention) (Schronert-Reichl & Roese, 2016). The IP lesson was divided innovatively: merged introduction and preparation part (25-30%) due to qualitatively better intensification of the lesson, the main part (60%) and end part (10%). The aim of the innovation in lesson organization was to transfer certain parts of the introductory part of the lesson right before the official start. During the rest of the time before the lesson students are getting prepared mentally for the tasks of the lesson which is the characteristic of self-regulated learning (Woolfolk, 2012, p. 370). Considering that IP was applied in total 10 lessons in 45 day - time span students were gradually introduced into the new organization, rules, rights and responsibilities whereas they participated themselves in defining the same. Teacher was trained to welcome students in a positive mood and maicutic teaching style. Throughout the experimental period, care has been given to character cultivation, individualized plans and goals oriented towards tasks and personal achievements.

![Schematic representation of Intervention Program (IP) with its four main aspects in the ecosystem of mandatory assets building blocks for successful young adult development that was used to study students’ experiences on physical education lessons](image-url)
Another innovation applied in IP was time dedicated to conversation, exchange of thoughts, experiences and impressions, respectively, recognition of personal/group feelings and motivations (Fig. 1). Beside the innovation in lesson organization, methods of teaching formal skills/knowledge (e.g. basketball, soccer, etc.) and taking care of regular physical activity, focus was on improvement and application of: 1. Motivation and life skills such as growth-mindset (Yeager & Dweck, 2012) and 40 developmental factors (Scales & et al., 2000); 2. Critical thinking (Yusuf, 2017; Jensen, 2005; Smith, 2003); 3. Cultivation of the character (Odin, 2012; Young Kim, 2012; Yuasa, 1993). They were implemented through confirmed, successful methods such as: a) constructive feedback, conversations about topics such as success/defeat, win/loss (Yeager & Dweck, 2012); b) homework readings of short and meaningful stories from great books (Adler, 1993) such as Mathnawi for kids authored by Mawalna Rumi, writing (Yusuf, 2018) volitional essays about experiences on the lessons; c) students decision-making and taking responsibility to lead a lesson, defining awards and punishments (Woolfolk, 2012); d) mindful meditative breathing techniques (Goleman & Davidson, 2017; Granovac et al., 2011; Schoner-Reichl & Lawlor, 2010); e) conversation, discussions and short feedback as reminder that each student has individual value, role, talent (Csikszentmihalyi, 2014), personal spark (Benson et al, 2012) and connection with the greater Reality, the Transcendent, God (Yale Youth Ministry Institute, 2017) through virtue, prayer, mindfulness and reminder that each student with personal dedication and virtuous behavior contributes to improvement of self, school, society and the world (Scales et al. 2015; Scales et al. 2014).

### Results

**Descriptive analysis**

Considering that all variables of the instrument describe the same field of the HEM, Table 1. shows average descriptive characteristics (M, SD, C) for both groups for a general view about the IP effects on HEM. M EG was increased from 3.41 on 4.18 (C from 3 to 4.45) while in CG from 4.04 on 4.4 (C from 4.3 on 5). Due to accent in HEM4, HEM 5, HEM 8 in EGF, IGF and ICG, it can be recognized that students identify big time motivation with their teacher and that they primarily describe motivation as opposition to boredom. C that is less sensible on extreme values than M shows high value (4.45 EGF) and may indicate coherence of the questionnaire.
Table 1

Descriptive parameters of responses in initial and final measures for experimental and control group

<table>
<thead>
<tr>
<th>Code of variable</th>
<th>Groups - measures</th>
<th>EGI (N=39)</th>
<th>CGF (N=20)</th>
<th>CGI (N=15)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>C</td>
<td>M</td>
</tr>
<tr>
<td>HEM1</td>
<td>4.14</td>
<td>0.99</td>
<td>4</td>
<td>3.10</td>
</tr>
<tr>
<td>HEM2</td>
<td>4.30</td>
<td>0.93</td>
<td>5</td>
<td>3.74</td>
</tr>
<tr>
<td>HEM3</td>
<td>4.28</td>
<td>1.05</td>
<td>5</td>
<td>3.82</td>
</tr>
<tr>
<td>HEM4</td>
<td>4.66</td>
<td>0.66</td>
<td>5</td>
<td>4.55</td>
</tr>
<tr>
<td>HEM5</td>
<td>4.52</td>
<td>0.97</td>
<td>5</td>
<td>4.46</td>
</tr>
<tr>
<td>HEM6</td>
<td>3.96</td>
<td>1.32</td>
<td>4</td>
<td>3.23</td>
</tr>
<tr>
<td>HEM7</td>
<td>4.06</td>
<td>1.14</td>
<td>4</td>
<td>3.69</td>
</tr>
<tr>
<td>HEM8</td>
<td>4.46</td>
<td>0.91</td>
<td>5</td>
<td>4.21</td>
</tr>
<tr>
<td>HEM9</td>
<td>3.52</td>
<td>1.43</td>
<td>3.5</td>
<td>2.90</td>
</tr>
<tr>
<td>HEM10</td>
<td>3.86</td>
<td>1.31</td>
<td>4</td>
<td>3.41</td>
</tr>
<tr>
<td>Average</td>
<td>4.18</td>
<td>1.07</td>
<td>4.45</td>
<td>3.41</td>
</tr>
</tbody>
</table>

Note: M - Mean; SD - Standard deviation; C - Variance

General reliability of the instrument is shown with a satisfying value of the Cronbach alpha (0.86). The test to measure sensitivity showed distributions (Kolmogorov-Smirnov 0.009, Shapiro-Wilk 0.001) (Figure 1). Histogram 1 shows a high number of students' level of satisfaction with physical education lessons regarding the HEM. Measuring test for sample adequacy Keiser-Meyer-Olkin showed 0.79 that indicates adequacy of the items for each of the remote factors. Bartlett test of sphereicity showed significance of 0.001.

![Diagram and histogram of normal distribution according to agreement level on the HEM instrument.](image-url)
Substantial validity

Prior to the design of the questionnaire, special attention was placed on achieving substantial validity that was an outcome of theoretical and comparative analyses (compare method in Scales et al., 2014, p. 1113) in the fields that study the term “meaning” and “purpose” (Table 2.), such as motivation (Csikszentmihalyi, 2014), PYD (Damon, 2004. Delivering OVEP Playbook, 2018), thriving (Scales et al., 2010), Philosophy of Nothingness (Standish & Saito, 2012, Heisig, 2001), Perennial philosophy (Smith, 2003). For example, HEM3 “I felt that I was learning and working without burden” and HEM10 “I experienced a feeling of peace and belonging” contain the key words “wholeness”, “peace”, ”belonging” that are often related to the terms “meaning, purpose, essence, transcendent and immanent, Divine, non-ego”. The same works for HEM1, HEM7, HEM8. PYD is inseparable from the competencies for the 21st century (Delivering OVEP Playbook, 2018) and it is represented in HEM6, HEM9, HEM2. Relationship as the key precondition for motivation (Roehlkepartain, Pekel, Syvertsen, Sethi, Sullivan, & Scales, 2017) is represented in HEM4, HEM5, HEM6. After instrument calibration, the final instrument has been finalized in ten variables (Table 2.).

Table 2
The core HEM identified Through Research Synthesis and Empirical Studies

<table>
<thead>
<tr>
<th>Code</th>
<th>The variable name</th>
<th>Interpretation of the variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEM1</td>
<td>During the lesson I experienced an indescribable feeling of motivation (Tokom časa sam osjećao/lje neopisiv osjećaj motivacije).</td>
<td>– “transcends every day, normal ego-consciousness” (Benson et al., 2012b, p. 455); – “merging action and awareness” (Csikszentmihalyi, 2014, p. 9); – “pure experience (Jao junsui keiken)/ immediate experience/direct experience (Jap. chokusetu keiken)” (Odin, 2016, p. 172)</td>
</tr>
<tr>
<td>HEM2</td>
<td>I felt that I was learning and working without burden. (Osećao/la sam da učim i radim bez opterećenja)</td>
<td>– Experiencing satisfaction of need for competence as the energy for action” (Creswell &amp; Ryan, 2015, p. 114); – “merging action and awareness” (Csikszentmihalyi, 2014, p. 139); – “Self as the locus of religion” (Young Kim, 2016, p. 99)</td>
</tr>
</tbody>
</table>
| HEM 3 | I felt myself being a part of wholeness. (Osjećao/la sam se djelom cijelina) | - "word 'hale' meaning 'whole': that is, to be healthy is to be whole... equivalent of the Hebrew 'shalem'" (Bohm, D. 2008, p. 3)  
- See Table 4 Adolescents' views of what it means to spiritual" (Benson et al., 2012, p. 462)  
- "loss of ego" "control of action and environment" (Csikszentmihalyi, 2014, p. 141) |
| HEM 4 | The teacher was not personally distant from us. (Niti smo bili osobito daleki izmijeđu sebe) | - See chart "What adults 'who get' teens do?" (Scales, Benson & Roehlkepartain, 2011, p. 7)  
- "control of action and environment" (Csikszentmihalyi, 2014, p. 142)  
- Deci and Ryan (2000, p. 233-240) |
| HEM 5 | The teacher was not personally distant from us. (Nastavnik nam nije bio dalek ni previše blag) | - See chart "What adults 'who get' teens do?" (Scales et al., 2011, p. 7)  
- "demands for action and clear feedback" (Csikszentmihalyi, 2014, p. 139) |
| HEM 6 | Because I had remarkable motivation that followed me after the lessons. (Jer sam imao/la neobičnu motivaciju koja me pratila i poslije nastave) | - "sparks and thriving" (Scales et al., 2011, p. 264)  
- Brown, Creswell and Ryan (2015, p. 112-118) |
| HEM 7 | I felt focus through contentment and being energized. (Osjećao/la sam 'fokusiranost' kroz zadovoljstvo i energizaciju) | - "centering of attention" (Csikszentmihalyi, 2014, p. 139)  
- "Intrinsic motivation in Deci and Ryan (2000, p. 233-240)" |
| HEM 8 | I did not feel bored. (Nisam se osjećao/la dosadno) | - See Image 7.1 a) (Csikszentmihalyi, 2014, p. 248)  
- The construct of thriving (sparks, empowerment, relationships) (Benson & Scales, 2009) |
| HEM 9 | I experienced motivation for drawing, singing, making figures, doing sport and involvement in participation in school subject sections. (Javljalo mi se motivacija za slikanje, čitanje, pjevanje, pravljenje figurala, bavljenje sportom, uključivanje u sekcije) | - The construct of thriving (sparks, empowerment, relationships) (Scales, Benson & Roehlkepartain, 2010; Benson & Scales, 2009)  
- "Education is the acquisition of the art of the utilization of knowledge" (Nishida in Odin (2016, p. 175)) |
| HEM 10 | I experienced a feeling of peace and belonging. (Javljalo mi se osjećaj mira i prihvaćenosti) | - "developmental relationships" (Scales et al., 2015, p. 3):  
- "whole" that is, to be healthy is to be whole... equivalent of the Hebrew 'shalem'... man has sensed always that wholeness or integrity is an absolute necessity to make life worth living. Yet, over the ages, he has generally lived in fragmentation" (Bohm, 2008, p. 3)  
- "definition of jivannukta (Skt.)" (Smith, 2003)  
- "sense of importance/value/aesthetic/beauty" (Odin, 2016, p. 176) |

Note: Inside the brackets is the original text in the Bosnian language.
**Structural validity**

Table 3 shows the correlation of construct items and it can be noted that variables generally have proper validity and correlation (>0.3). It shows that HEM4 has the smallest correlation (0.3) with HEM1 and HEM5 and that the same variable was isolated in the factor analysis as the third factor (Table 3). Communality of variables is generally satisfying from 0.6 to 0.8 (Table 2). The lowest coefficients are HEM3 (0.59) and HEM9 (0.58), while HEM4 (0.83) and HEM7 (0.79) are two highest. It can be noted that this factor describes majority of the percentage from the total variance (Table 4.).

**Table 3**

*Correlation matrix of HEM instrument and Summary Item Statistics*

<table>
<thead>
<tr>
<th></th>
<th>HEM1</th>
<th>HEM2</th>
<th>HEM3</th>
<th>HEM4</th>
<th>HEM5</th>
<th>HEM6</th>
<th>HEM7</th>
<th>HEM8</th>
<th>HEM9</th>
<th>HEM10</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEM 1</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEM 2</td>
<td>0.40*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEM 3</td>
<td>0.53*</td>
<td>0.37*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEM 4</td>
<td>0.29*</td>
<td>0.24</td>
<td>0.17</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEM 5</td>
<td>0.60*</td>
<td>0.25*</td>
<td>0.27*</td>
<td>0.25*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEM 6</td>
<td>0.56*</td>
<td>0.51*</td>
<td>0.46*</td>
<td>0.13</td>
<td>0.37*</td>
<td>1.00</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>HEM 7</td>
<td>0.59*</td>
<td>0.48*</td>
<td>0.56*</td>
<td>0.09</td>
<td>0.48*</td>
<td>0.73*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEM 8</td>
<td>0.56*</td>
<td>0.24*</td>
<td>0.33*</td>
<td>0.20</td>
<td>0.62*</td>
<td>0.59*</td>
<td>0.59*</td>
<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>HEM 9</td>
<td>0.37*</td>
<td>0.22</td>
<td>0.31*</td>
<td>0.19</td>
<td>0.49*</td>
<td>0.46*</td>
<td>0.37*</td>
<td>0.50*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>HEM 10</td>
<td>0.38*</td>
<td>0.17</td>
<td>0.25</td>
<td>0.09</td>
<td>0.33*</td>
<td>0.40*</td>
<td>0.47*</td>
<td>0.66*</td>
<td>0.52*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note: a. Determinant = .008; * p. Weight index >.3*

**Summary Item Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
<th>Maximum/Minimum</th>
<th>Variable</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item Mean</td>
<td>4.18</td>
<td>3.52</td>
<td>4.65</td>
<td>1.14</td>
<td>1.32</td>
<td>.11</td>
<td>10</td>
</tr>
<tr>
<td>Item Variance</td>
<td>1.2</td>
<td>.43</td>
<td>2.05</td>
<td>1.62</td>
<td>4.74</td>
<td>.25</td>
<td>10</td>
</tr>
</tbody>
</table>

According to the pattern matrix (Table 5.), the first factor is saturated with 5, the second with 5 and the third with 2 items. Following the methodological and theoretical principles explained in Methods of this study, it can be concluded that the matrix is relatively clean. HEM1 and HEM4 are relatively isolated. HEM1 has lower load than other particles, and among two factors and HEM4 remained the individual particle of the third factor. Accordingly, this variable may represent a separate dimension of
the same instrument because it shows high communality (0.8) with other variables (Table 5). Apart from the two noted, it can be said that the matrix is relatively clean. To determine representative factors, only those with the load ≥0.6 were taken.

Table 4
Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvectors</th>
<th>Extraction Sum of Squared Loadings</th>
<th>Rotation Sum of Squared Loadings*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Var.</td>
<td>Cum. %</td>
</tr>
<tr>
<td>1</td>
<td>4.695</td>
<td>46.955</td>
<td>46.955</td>
</tr>
<tr>
<td>2</td>
<td>1.150</td>
<td>11.495</td>
<td>58.451</td>
</tr>
<tr>
<td>3</td>
<td>1.050</td>
<td>10.495</td>
<td>68.946</td>
</tr>
</tbody>
</table>

The first factor is composed of components that are denoted by variables: HEM10; HEM8; HEM9. The first factor can be summed up under the term “meaningfulness – purpose” whereas motivations describe the purpose that students experience through the manifestation of “peace,” “belonging,” “motivation (opposite to boredom)” for motivation for drawing, singing, making figures, doing sport and involvement in participation in school subject sections”.

The second factor is composed of components that are denoted by variables: HEM2; HEM3; HEM7; HEM6 and it can be summed up under the term “focus” because all three variables describe presence in which students feel being a part of the whole and experience their own identity, personality.

Table 5
Principal Component Factor Analysis

<table>
<thead>
<tr>
<th>Pattern Matrix</th>
<th>Component</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>HEM10</td>
<td>0.850</td>
<td></td>
</tr>
<tr>
<td>HEM8</td>
<td>0.772</td>
<td></td>
</tr>
<tr>
<td>HEM9</td>
<td>0.771</td>
<td></td>
</tr>
<tr>
<td>HEM5</td>
<td>0.656</td>
<td></td>
</tr>
<tr>
<td>HEM2</td>
<td>0.821</td>
<td>0.345</td>
</tr>
<tr>
<td>HEM3</td>
<td>0.773</td>
<td></td>
</tr>
<tr>
<td>HEM7</td>
<td>0.735</td>
<td></td>
</tr>
<tr>
<td>HEM6</td>
<td>0.706</td>
<td></td>
</tr>
<tr>
<td>HEM1</td>
<td>0.343</td>
<td>0.465</td>
</tr>
<tr>
<td>HEM4</td>
<td>0.902</td>
<td></td>
</tr>
</tbody>
</table>

Note: *a Oblimin rotation and Kaiser normalization. Rotation converged in 10 iterations.
The third factor is composed of the component that is denoted by the variable HEM4 and it can be summed up under the term “example/role model” because students, through the teacher, recognize intrinsic motivation which may accordingly be a manifestation of the purpose, which is therefore manifested differently, in opposition to boredom, such as the experience of peace, belonging and motivation - motivation for drawing, singing, making figures, doing sport and involvement in participation in school subject sections - and focus in the present moment.

**External validity**

At the same time when HEM was tested, Branković et al., (2017), Branković and Hadžidakunić (2017) and Branković and Badrić (2019) were conducted too. They showed positive effects on flow experience, sparks, mindfulness and growth-mindset. Positive results in these three studies give us initial and preliminary verification of external validity. Having in consideration a number of participants (50 in the factor analysis and 74 in total), this study represents a type of probe studies (Opić, 2016) and for that reason it is a preliminary study in the field of testing the new instrument and program for PYD and motivation.

**Discussion**

The results show that the aim of the study – to test the HEM instrument that measures the need for Purpose - has been fulfilled. The reasons why the purpose may be a common characteristic in different definitions of motivation have been presented throughout the work. Literature from the fields of motivation, education psychology, philosophy and education theories and spirituality/religiosity (see Scales et al., 2014, p. 1113) has been presented as a guide that has led us towards the hypothesis that different experiences and motivation theories (thriving / sparks, flow, intrinsic motivation, mindfulness, self-determination, growth mindset) are in reality different manifestations of the purpose or experiences of the purpose. Also, throughout the study we have indicated the research fields and philosophies with practical applications that should be further examined in future studies, such as Philosophy of Nothingness (Standish & Saito, 2001; Heisig, 2001), Perennial philosophy (Smith, 2003), sparks (Scales et al., 2015; Scales et al., 2014), findings in neuroscience regarding meditation, mindfulness and prayer (Goleman & Davidson, 2017) and physical exercise (Suzuki & Fitzpatrick, 2015).

The results showed us that environment and society have a significant role in motivation – finding and following the purpose. Future studies of HEM instrument should extend the variable HEM4 with additional variables in order to get a cleaner grouping of the factors. Through educators, students go beyond introjected motives.
because they see an example in them. At first, they identify themselves with educators as SDT shows (Deci & Ryan, 2000) and they become motivated to act for well-being and for a common social good so they integrate their personalities with common social good. Finally, they experience the spark, the inner call, and they ultimately transcend self-ego consciousness, as Bianco, Barilaro & Palmieri, (2016) noted, too. Accordingly, on the practical plane, the important factor that can significantly affect outcomes of future HEM validation is expertise, training of educators to provide a suitable I?. Additionally, to overcome limitations of the study regarding the sample, and get stronger evidence, external validation with other constructs of motivation should be done. However, preliminary results of the studies done at the same time may be an initial strong proof of the positive correlation of the HEM instrument with perceived competence, self-determination, intrinsic motivation, thriving, flow experience, growth mindset and mindfulness (Branković & Badrić, 2019; Branković & Hadzikadunić, 2017; Branković et al., 2017).

Finally, on the one hand, contemporary studies indicate that depression is the most widely spread disease in the world today (World Health Organization, 2018) and that it is connected with a lack of self-control and attention (Goleman & Davidson, 2017) which, further on, affects negatively learning, healthy life style, prompting delinquency, consummation of addictive substances, early pregnancy, suicides, unhealthy diet (World Health Organization, 2018; Halfors et al., 2005). On the other hand, physical exercise affects positively health and well-being in general terms (Suzuki, & Fitzpatrick, 2015) and at the same time there is a decrease in physical activity and exercise (Badrić et al., 2015). Nevertheless, studies show that meditation and prayer in combination with physical exercise (Goleman & Davidson, 2017; Suzuki & Fitzpatrick, 2015) have a positive effect on healing depression, trigger self-regulation and experience of the meaning and well-being. These understandings open up a need for a wider understanding of spirituality, religiosity and exercise in order to find a path towards a healthy childhood and future meaningful life. On a practical plane, the tremendous importance lays in character cultivation as a foundation of holistic education of each individual that is extensively elaborated in the Philosophy of Nothingness (see Heisig, 2001; Standish & Saito, 2012), Perennial philosophy (see Smith, 2003) and in empirical studies about practicing spirituality/religiosity (see Bugari, 2012; Goleman & Davidson, 2017; Kheriaty & Cihak, 2012).

All in all, to motivate students to be aware of the higher reality with PYD in mind (Scales et al., 2000) and practicing values in education (Delivering OVEP Playbook, 2018; Odin, 2012) parents, educators and coaches can maintain the process of self-
knowing firstly themselves and then with students through sparks, positive relationships and empowerment that further on contribute to satisfaction of the soul's need for self-determination. The main reason why awareness of higher reality may play a big role is that soul needs - as same as other motivation constructs - are eventually manifestations of the need for purpose. It is also named "emptiness" (Skt. shunyata, Jap. mu) (see Heisig, 2001; Standish & Saito, 2012) that people experience and witness as flow (Csikszentmihalyi, 2014), growth mindset (Yeager & Dweck, 2012), mindfulness (Granovac et al., 2011) and finally colloquially described as “Something” we experience, an utmost need for experience of completeness in life (Heisig, 2001, p. 43, 56, 59, 81). In this context, a motivation pyramid (Maslow, 1971) that is in a way a foundation of positive psychology confirms the aim of this study - an intention in the search for that one motivational need (Frankl, 1984). In fact, at the end of his life, Maslow emphasized that a human being finds a true motive only when he/she “transcends his needs”, in "meta motivation", in “believing in a purpose to life” (Benson et al., 2012, p. 462) and in unconditional service for the purpose of goodness (Maslow, 1971). Today, according to PYD, kids and adolescents experience transcending their needs as sparks (Benson, 2009), youths and adults as “purpose and meaning” (Mariano & Damon, 2008; Frankl, 1984), “universal idea” (Woolfolk, 2012, p. 286), “God” (Benson et al., 2012, p. 464), “transcendence and immanence” (Piaget, 1928) because through them a person goes beyond his/her ego. These are the reasons why we find appropriate to name the essential human motivation need: the need for purpose/meaning as Frankl evoked, too. Additionally, the global study conducted by Benson et al. (2012, p. 454 - 455, 464) showed that the term “spiritual” denotes “higher meaning” and is necessary for PYD and that it is mostly defined as “believing there is a purpose to life” and “believing in God”.

**Conclusion**

According to above mentioned results and findings, this study offers: a) a relatively different, holistic approach in defining reasons for demotivation and depression in youth as a lack of purpose; b) formation of a new, currently preliminary instrument HEM for registering the experience of holistic motivation, the purpose, and; c) intervention program (IP) to overcome depression and demotivation. The instrument HEM, which registers holistic experience of motivation, motivation to seek the purpose and meaning in life, and IP, which indicates the content that cultivates character and motivates the experience of the purpose, can be applied as tools for the realization of UN SDGs (Social Development Goals) 2030 and in different general and specific educational programs such Olympic Values Education Program, A Mindfulness-Based Kindness Curricula etc.
References


