

Preprofessional self-concept of teacher training college students in Hungary

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The aim of our study was to explore how and along which dimensions teacher college students in Hungary depict themselves as would-be teachers at the start of their professional education. A total of 423 freshpersons participated in the study (326 females and 93 males). A feature list was used for the measurement of self-concept. Factor analysis of the results suggested four dimensions, such as *Empathically Determined, Self-Uncertain, Good Leader* and *Motherly*. Students were ranged into a total of nine different role clusters along these dimensions. These self-concept patterns were found to be significantly different by analysis of variance.

Becoming a teacher is a long process in which subsequent stages of professional choice, training, start of career and course of career are distinguished (Rókusfalvy, Stuller & Kelemenné Tóth, 1981). Self-concept in studenthood is of deciding importance in the process. A survey of related literature suggests that though some studies are focused on the relationship between career orientation and self-concept, a much larger volume of research is devoted to the investigation of the training period itself. Here special emphasis is given to students' concepts about themselves as would-be teachers (Burns, 1982). Herein after, this term will be referred to as „preprofessional self-concept”, as opposed to real professional self-concept of graduated teachers.

Super (1957) was the first to outline the relationship between self-concept and career choice. He argued that the individual will choose a profession in the belief that the chosen professional role is consistent with his or her self picture. This theoretical hypothesis was investigated by Soares and Soares (1966) by comparing self-concepts and chosen subjects in teacher college students. In music, science and physical education students it was found that similar subjects included students with similar self-concept, that is self picture is related to the chosen subject. Self-concept differences were seen not only as to subjects, but also as to target age groups of teachers training (primary, elementary, secondary and special education). The

highest self picture score was observed in would-be secondary school teachers (Burns, 1982).

Awanbor (1996) uses a different theoretical standpoint when arguing that self-concept may have an impact on professional choices.

He claims that persons with high self-concept will choose highly prestigious professions. Since teacher careers do not belong to the latter, high self-concept persons would not choose it, they do not want to work in this profession, therefore they are expected to have negative attitudes toward it. Awanbor (1996) confirmed his claim in a sample of Nigerian teacher training college students. Naturally, another issue of how individual self-concept is influenced by features of a particular profession may also arise (Super, 1957).

The professional self-concept (self-description of graduated teachers in their professional role), is a peculiar aspect of self-concept as a whole, which will evolve on the long run (Burns, 1982), but may be contributed to by targeted investigations in the training period. A conventional method for exploring the dimensions of preprofessional self-concept is the semantic differential. In his study of the structure of self-concept, Walberg (1967) distinguished five dimensions by which students characterized themselves: neatness and brightness, stability and goodness, accessibility /motherly warmth/, expressiveness and narcissism. The author compared this picture, to that formed about teachers in general, and came to a conclusion that the self perception of students was less differentiated than their general picture of teachers.

In other studies, we found examples of the use of seven factors (warmth and supportiveness, creativity, noncon-

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formity, orderliness, satisfaction, clarity, energy and enthusiasm) in the investigation of preprofessional self-concept (Walberg, 1968; Gary & Allen, 1978).

Nevertheless, most investigations of self-concept are focused on the most important element of teacher training, on the teaching practice.

Some of these studies are interested in how the opinion of significant practical training persons may influence the self-concept of the students; whether that of the supervisor teacher or the cooperative teacher is more decisive (Soares & Soares, 1968).

Another line of investigations is the effect of teaching experience on self-concept. Burns (1982) published a lot of results that suggest that the effect was generally negative, and caused a decline in self-concept. On the other hand, it was he who argued that this is not unavoidable: improving the conventional system of training teaching practices may even lead to a rise in the self-concept of the teacher students.

We may come to a conclusion that self-concept of students is a decisive factor in the evolving process of the effectivity of would-be teachers. It will influence their behavior, the quality of their relationships with the pupils, their teaching style, and their expectancies as to themselves as teachers and as to their pupils. Thus, investigations on the self-concept of the students may contribute to the improvement of their teacher training process.

Our paper is related to the investigation of preprofessional self-concept features of teacher training college students. Our aim was to explore how they describe themselves in the teacher role at the beginning of their professional training. Is there any difference in the self-concept of male and female students, would-be primary and high school teachers? Which are the most salient self-concept patterns in the sample?

METHOD

Participants

A total of 423 freshperson subjects participated in the study, who started their training in the academic year of 2000, as primary or high school teacher trainees at the Jászberény College Faculty of the Szent István University and at the Nyíregyháza College. The male-female ratio was not balanced in the sample (326 women and 93 men), a fact well reflecting the gender rate pattern in the teacher profession. The mean age was 19.2 years ($SD=1.499$, age range: 18-34). All the students were full time ones, studying for their first degree. 152 of them were trained to be primary, 268 to be high school teachers.

Procedure and data analysis

Self-concept was measured by using a feature list. From many available lists, the Leary Checklist was selected, which contains a total of 128 features. Originally designed by T. Leary for the investigation of social-interpersonal behaviour, this list was favourable for us because it contains proper and differentiated items for the description of a broad range of behaviours manifested in teacher-student relationship. Leary distinguished five levels of the Self, of which this instrument was used for the study of „Objective” (Level I), „Subjective” (Level II) and „Ideal” (Level V) Selves (Kulcsár, 1981, 1991). However, the original theoretical conception and evaluation method was not followed in the present investigation, due to the lack of a standardized variant for Hungarian population.

A further advantage of Leary’s method is that it forms a transition between free and limited forms of experimental self-description: test persons may select as many features as they wish to, but the full scope of choice is only 128 features as a total.

The participating students were selected on voluntary and anonymous basis, in psychology course related seminars at the beginning of the term. In the Hungarian teacher training system, the students do not yet take part in training practice. This fact was important for us, because we intended to explore the initial features of preprofessional self-concept of the students. The instruction was as follows: “Please imagine yourself as a teacher and circle all features which you would regard characteristic to you as a teacher. Please decide quickly, and try to judge yourself realistically. There are no good or bad choices. Myself as a teacher...” The subjects were allowed to choose as many features as they wanted to.

The data were processed by the MiniStat 3.2 program pack (Vargha & Czigler, 1999; Vargha, 2000). Features circled were coded by digit “1”, features uncircled by digit “0”. The results were factor analyzed, performing principal component analysis with varimax rotation. Fourteen features were omitted from the analysis, because they did not differentiate between the subjects (scared, bitter, unmerciful and rigid, boastful, cold and insensitive, selfish and self-conceited, hurt, self-caring, selfish and greedy, sarcastic, uneasy to make good impression on him/her, selfish, distrustful to all, full of complaints). These items had very low variance and correlation values, therefore they were excluded from factor analysis. Overall, these were mostly negative features. Item analysis was performed to test factor reliability.

Then Ward's hierarchical cluster analysis was made using the Slepner program pack (Bergman & EL-Khoury, 1998) with the aim to form homogenous subgroups within the sample along the factors. Then cluster membership was tested by analysis of variance, and the effect of gender and subject on self-concept was measured by t-test.

RESULTS

Factors of self-concept as a teacher

A total of six factors were obtained. Based on factor membership (criterion factor weight =.35), scales were constructed, whose internal consistency was estimated by item analysis. Content of factors, including factor weights are shown in Appendix A. Based on Cronbach alpha values, Factors 4 ($\alpha=.557$) and 6 ($\alpha=.549$) were regarded as low reliability ones, so they were excluded from further analysis. Results of the remaining factor scales are shown in Table 1. Correlations between factor scales ranged between -.100 and .566 (mean $r =.239$). Though somewhat higher correlation was found between Factors 1 and 3 ($r =.566$), these were handled separately in the analysis. On the above ground, Factors 1, 2, 3 and 5 were regarded as different dimensions suitable for the characterization of preprofessional self-concept of teacher college students.

Termed "Empathically Determined", Factor 1 includes a total of 17 features. This dimension describes a teacher who is decisive, able to give instructions, but can be uncompromising and rigorous if needed. However, he/she has self-criticism as well, and is able to accept advice from others.

In social context, he/she is able to pay attention to others, since he/she is attentive, encourages and acknowledges others, and is cooperative. Features like caring, helpful, loving and understanding refer to emotional warmth. This

teacher is open, honest and gives himself/herself without reservation. Altogether, these features depict a warm, supportive, empathic and well-controlled teacher who will listen to and accept the opinion of his/her pupils.

Termed "Self-Uncertain", Factor 2 contains 17 items. Such teachers have low self-confidence, are timid, or do not dare to express their own opinion. He/she is easy to guide, often needs help, and likes to be cared for. Emotionally labile, often depressed, disappointed. The lack of self-confidence is manifested in the fact that others will have too much impact on him/her, and he/she will be pushed to the background. This uncertainty may appear in his/hers relationship with the pupils in a manner that the teacher is permissive, but - since it is exploited - he/she may become over-controlling, and this may lead to fluctuating educational attitudes. However, in a positive interpretation, this may also mean flexibility, i.e. openness to changes.

Describing the "Good Leader", Factor 3 is composed of 9 features. He/she will fascinate others, and evokes respect and good impression. He/she is an important personality. This may also apply to the professional knowledge, character and professional results of the teacher. The teacher has good respect, is dominant and self-confident, but not strongly authoritarian, because he/she is nice and friendly.

Nevertheless, his/her relations will not be characterized by warmth to an extent that was described by Factor 1. He/she is the type of a legitim leader who keeps distance from the pupils, and exerts control based on authority.

Termed "Motherly"; Factor 5 includes 6 items. The teacher is warm-hearted, caregiving, tries to please everybody. He/she will make efforts that each child would like and accept him/her, and will do everything to reach this - even at the price of sometimes being all too permissive. This teacher will feel well only when embedded in a loving, accepting atmosphere. He/she will try to create proper conditions for each and every pupil. A risk of such behaviour may be exaggerated caregiving which, in turn, will hinder the process of self-reliance in pupils.

Gender differences

Gender differences were examined by the two-sample t-test along the factor scales. The results suggested that there was no significant differences between men and women in Factor 2 ("Self-Uncertain"). In the other three factors however, male students showed significantly lower means than the female ones (Factor 1 $t(417) = -4.35, p < .01$; Factor 3 $t(417) = -2.001, p < .05$; Factor 5 $t(417) = -2.27, p < .05$ - Figure 1).

Table 1

Results of factor and item analysis for the scales

	Factor 1	Factor 2	Factor 3	Factor 5
<i>EV</i>	6.786	6.075	5.060	4.105
α	.842	.806	.779	.684
$R^2\%$	5.952	5.328	4.438	3.600

Note: EV-Eigenvalue, α - Cronbach alpha coefficient, $R^2\%$ - Percentage of explained variance

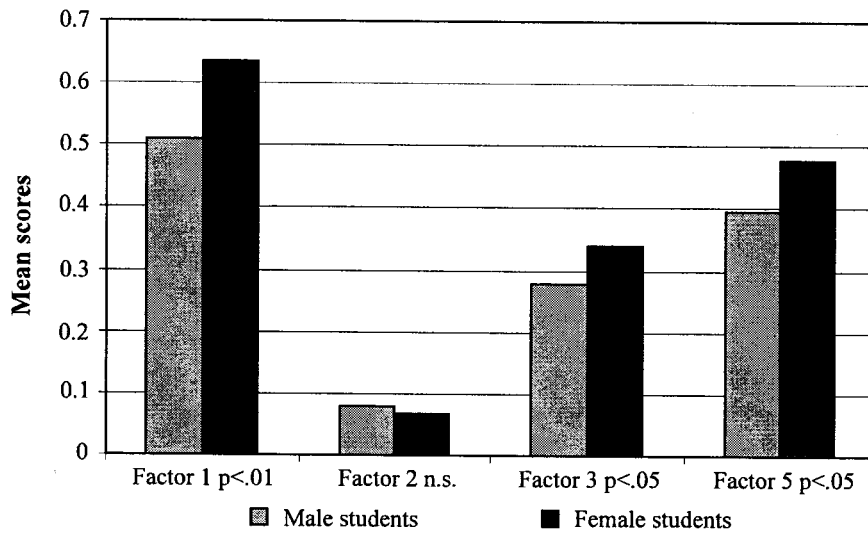


Figure 1. Differences between male and female students along the factor scales

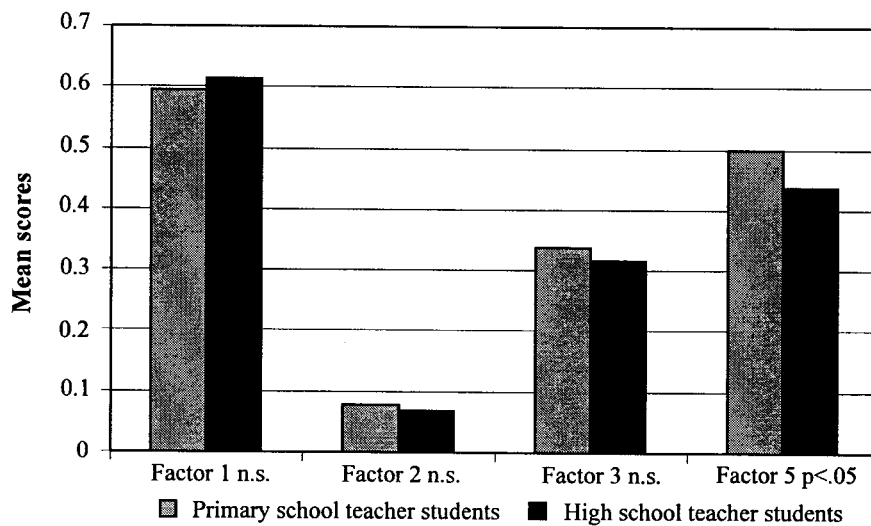


Figure 2. Differences between primary and high school teacher students along the factor scales

Differences between primary and high school teacher students

One of our research question was whether there were professional self-concept differences between teacher students trained to work with different age groups.

In this respect, significant differences were seen only in Factor 5 ("Motherly") $t(421) = 2.002, p<.05$. Primary school teacher students showed higher means in the "Motherly" dimension than their high school teacher student counterparts (Figure 2).

Patterns of self-concept as teacher

Ward's hierarchical cluster analysis was performed by the Sleipner program pack. Our aim was to range the students into homogenous subgroups along the factor scales. The subjects were classified into nine clusters, which explained for 70.2% of variance. Three subjects had to be excluded from the total sample, because they did not fit into any of the groups. Factor scale means of the clusters are shown in Table 2.

Table 2

Mean scores of the Factor scales in the Clusters

Cluster	N	Factor1	Factor2	Factor3	Factor5	M
1	68	.553	.013	.412	.216	.298
2	77	.277	.022	.092	.206	.149
3	92	.606	.029	.211	.656	.376
4	41	.872	.057	.642	.841	.603
5	32	.718	.230	.208	.714	.468
6	34	.874	.017	.317	.235	.361
7	26	.328	.215	.115	.346	.251
8	16	.860	.390	.569	.865	.671
9	34	.870	.005	.752	.397	.506
M		.607	.065	.324	.458	

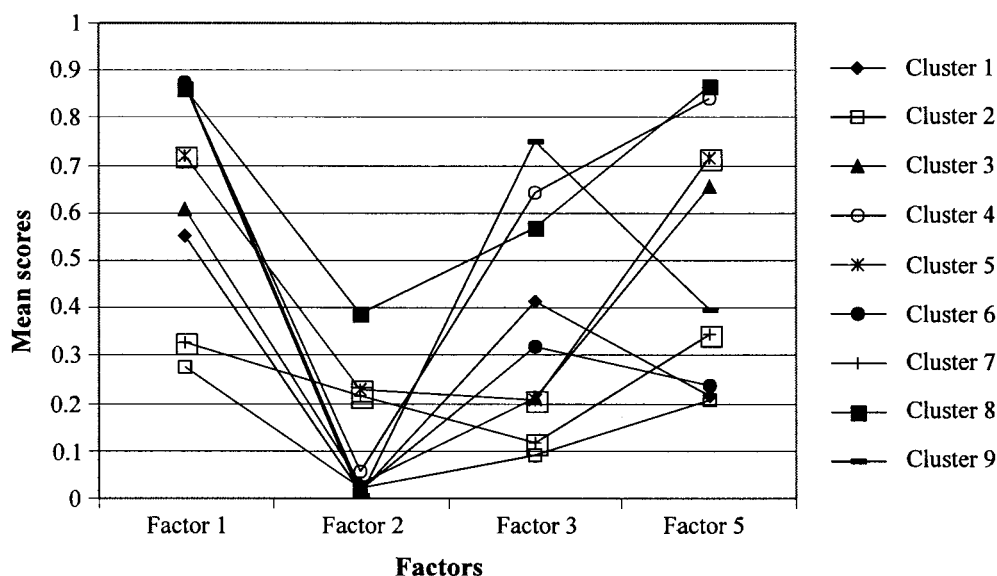


Figure 3. Patterns of self-concept as teacher

One-way ANOVA showed significant differences between the nine clusters along the means of the factor scales (Factor 1: $F(8,411) = 145.19, p < .01$; Factor 2: $F(8,411) = 158.73, p < .01$; Factor 3: $F(8,411) = 96.81, p < .01$; Factor 5: $F(8,411) = 99.85, p < .01$). The groups have self-concept patterns that differ from each other at a statistically significant level (Figure 3).

Self-concept patterns of the groups were analyzed on group by group basis. Interpretation is presented in descending order along the means of self-concept values in the particular groups (the sequence is: Clusters 8, 4, 9, 5, 3, 6, 1, 7, and 2). Self-picture of students as teachers in each

group is shown according to dominant factor scales. Significant differences reflect the results of paired comparisons of the means according to Games and Howell.

In Cluster 8, a self-concept pattern reflected very high scale means on Factor 1 („Empatically Determined”) and Factor 5 („Motherly”). The cluster members had lower values in Factor 2, but this was still very high when compared to the means of the other groups in this Factor. This cluster was labelled as “Warm-hearted, worrying teacher”. These teachers will do everything for the pupils, will be empathic and caregiving. The problem here is self-uncertainty; though this might lead to extremities, still we think that the

simultaneous presence of dominance (the ability to exert proper control) will manifest itself in uneasiness or worrying rather than in extreme behaviour. A total of 3.8% of the sample ($n=16$) belonged to this cluster.

In *Cluster 4*, the members differed significantly from those in the previous one only in Factor 2 ("Self-Uncertain"), their means were lower in this dimension. The cluster label was "Warm-hearted, accepting and determined teacher". Students in this cluster described themselves as self-confident and determined on the one hand, and empathic and attentive to pupils on the other hand. Such teachers are warm, well controlled and able to lead others. They are able to create an atmosphere where pupils can safely express themselves, and this may contribute to honour to and acceptance of the teacher. This cluster included 9.8% of the sample ($n=41$).

Cluster 9 was composed of students having very high scores on Factor 3 ("Good Leader"). The members showed significant difference from the previous cluster only in Factor 5 ("Motherly"); they had lower mean on this scale.

Thus, the cluster label was "Understanding leader". The members described themselves as an empathically determined and accepting teachers. They consider the opinion of others; behave in an encouraging way, but not all too motherly. They are good leaders who display unambiguous expectations. They exert control and act in consideration of the pupils' needs and real nature. The membership rate in this cluster was 8.1% ($n=34$).

Cluster 5 showed no significant difference from Clusters 8 and 4 in Factor 5 ("Motherly"); they had similarly high scores on this dimension. Significantly different means were seen, however, in the remaining factors. The most salient feature in the members' professional self-picture was that they would do everything for the pupils, would display a loving, caregiving behaviour (Factor 5). On the other hand, they are rather self-uncertain; this feature is paired with leadership as a weak point in their self-concept. This can be interpreted in a manner that they are less dominant in their relationships with the pupils. They are perhaps all too permissive, but their acts are motivated by a loving attitude to the children. Therefore, the cluster was labelled as "Warm-hearted, all too permissive teacher". Such self-description was found in 7.6% of the sample ($n=32$).

Cluster 3 had a mean value somewhat lower than the total mean. It did not differ significantly from the previous one in Factor 5 ("Motherly") or Factor 3 ("Good Leader"). However, it was characterized by significantly lower values in Factor 2 ("Self-Uncertain") and Factor 1 ("Empathically Determined"). These students imagined themselves as "motherly" teachers who would do everything for the children.

Such teachers are accepting and decisive, with neither uncertainty, nor expressed dominance. Therefore the cluster was labelled as "Warm-hearted, permissive teacher". It included 21.9% of the sample ($n=92$).

In *Cluster 6*, the students had low self-concept means as compared to the total mean. In their professional self-picture the most salient dimension was Factor 1 ("Empathically Determined"), in which they had the highest means. Factor 5 ("Motherly") was less characteristic for this cluster: it had significantly lower means than the previous ones. Leadership or dominance were not strengths in this cluster, either, though the means were significantly higher than in Clusters 5 and 3. That was why this cluster was labelled as "Understanding, democratic teacher". Such teachers would treat pupils as equals, would consider their opinion. They are self-confident, but not controlling. The membership rate was 8.1% ($n=34$).

In *Cluster 1*, the professional self-concepts were similar to those in Clusters 6 and 9. However, the members had significantly lower means than those in Cluster 9 in each factor. They had significantly lower means in Factor 1 ("Empathically Determined"), and significantly higher means on Factor 3 ("Good Leader") than Cluster 6. Members of this cluster can be described as acceptive, understanding teachers. However, they are not very warm-hearted or motherly. Dominance, leadership and honour are more important for them. Accordingly, the cluster was labelled as "Conventional teacher". Membership rate was 16.2% ($n=68$).

In *Cluster 7*, the self-concept means were the second lowest in the sample. The members showed no significant difference from Cluster 5 in Factor 2 ("Self-Uncertain") or in Factor 3 ("Good Leader").

Such teachers are self-uncertain and weak leaders on the one hand, and not too high in Factor 1 (understanding, acceptive), either. They permit all too much to their pupils, but not for the reason because they would do everything for the children, but because they are not sure in what the proper attitude is. This cluster got the label "Permissive teacher". A total of 6.2% of the sample belonged here ($n=26$).

In *Cluster 2*, the lowest means were ranged. Except Factor 2 ("Self-Uncertain"), this group had the lowest means in all dimensions. These students imagined themselves as teachers who are not uncertain in themselves. However, they exerted much less marked differences from the other clusters. The label of this cluster was "Unsettled Teacher". We think this result comes from the fact that these students cannot conceptualize themselves as teachers. The membership rate here was 18.3% ($n=77$).

Distribution of students in the clusters

A total of 56.4% of the students were grouped in three clusters. These were: “Warm-hearted, permissive”, Cluster 3 (21.9%), “Unsettled”, Cluster 2 (18.3%) and “Conventional”, Cluster 1 (16.2%) (Figure 4).

Within the sample, differences were found between male and female students according to their distribution in the clusters. In the male group, most students were ranged into the “Unsettled” Cluster 2 (32.2%, $n=29$), which had the lowest means except for Factor 2. This was followed by Cluster 3 (“Warm-hearted, permissive”; 17.7%, $n=16$) and Cluster 1 (“Conventional”; 15.5%, $n=14$) (Figure 5).

In the female group, most students belonged to Cluster 3 (22.2%, $n=73$) which describes the “Warm-hearted, permissive teacher”. This was followed by Cluster 1 (“Conventional”; 16.5%, $n=54$) and Cluster 2 (“Unsettled”; 14.7%, $n=48$) (Figure 6).

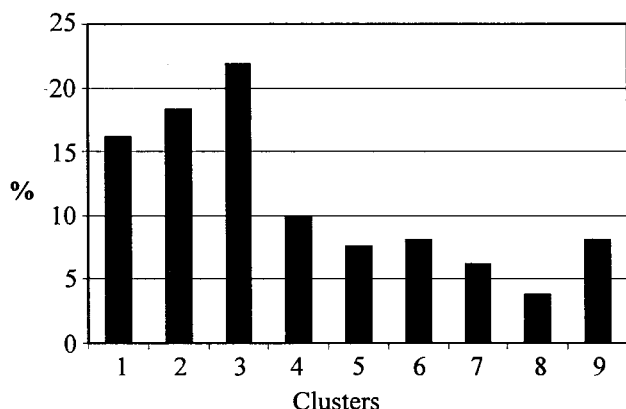


Figure 4. Percentile distribution of the students in the clusters

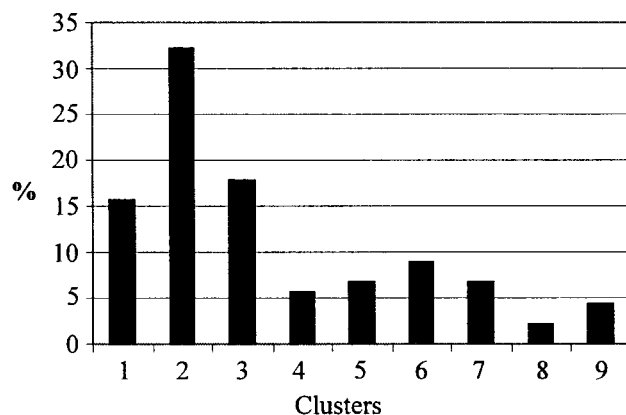


Figure 5. Percentile distribution of male students in the clusters

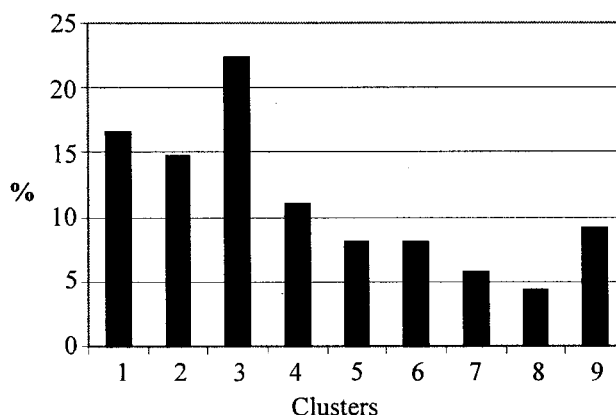


Figure 6. Percentile distribution of female students in the clusters

DISCUSSION

In our study we intended to explore how freshperson teacher students imagine themselves in the role of teacher. We found four dimensions, namely “Empathically Determined”, “Self-Uncertain”, “Good Leader” and “Motherly”. On this ground we investigated the gender differences in the students’ preprofessional self-concept. Our results suggest a conclusion that the two sexes differed significantly along the factor scales. Practically no literature references were found for gender-related self-concept studies (Awanbor, 1996). This may be explained by the female overdominance in teacher training institutions, i.e. by the fact that it is rather difficult to find appropriate samples for comparison.

Our results may be related to several factors. Teacher profession is selected much more often by women than by men; this fact is responsible for the higher rate of female students. On the other hand, stereotypes related to the teacher profession include rather female than male features.

Another important characteristic of this vocation is that teacher professions do not belong to the rank of high-prestige, well-paid jobs in Hungary. Literature suggests that an important element of vocation choice is the person’s preliminary professional self-picture (Secord & Backman, 1972). Nowadays, however, this is not the decisive aspect: the students will select not a career, but a college, because their primary aim is to get a degree rather than being devoted to their choice. Our study did not extend to the investigation of this phenomenon. Nevertheless we had one question inquiring professional commitment (“Do you want to work as a teacher when you obtain your degree?”). The results may be of some help in the explanation of gender differences. Only 25.5% of the male students thought

that they wanted to work as teachers, while this rate was 47.4% in the female sample. The hopeful side of the picture was that the remaining students gave an "I do not know" answer, and did not display an absolute refusal in this respect. Naturally, no deeper conclusions can be drawn from these results. An explanation may be that for men it is more difficult to identify themselves with the teacher's role, they may have ambivalent emotions, cannot easily imagine themselves as teachers. All these may explain why their self-esteem is lower in the teacher's role than that of the female students.

Furthermore, we were interested in the differences between primary school and high school teacher students as well. Our results suggested a conclusion that the chosen major was not very influential on the preprofessional self-concept of the students. The only difference, seen in the „Motherly” Factor, can, however, be regarded as favourable. A plausible interpretation may be that primary school teacher students consider it important to give care to the pupils and to meet their demands for emotional safety. They know that this pupil age group has different psychological features and needs.

A further question in our investigation was whether characteristic self-concept patterns could be explored within the test student group. From the nine homogenous groups distinguished in the study, we think that the preprofessional self-concept of Groups 8, 4, 9, 5, 3, and 6 may already reflect a new educational perspective. This means a more proximal relationship between the teacher and her pupils, and shows a trend toward a ceasing authoritarian attitude. Of course, these groups showed significant differences from each other. From the three most frequent patterns, also the „Warm-hearted, Permissive” self-concept was ranged here. An opposite attitude was seen in the „Conventional” teacher picture, which may reflect patterns experienced by the student teachers in their own primary- or high school years. Concepts of the „Permissive” group was evaluated as the least favourable in our sample. Finally, the „Unsettled” group, as it was mentioned earlier, may have difficulties in imagining themselves in the teacher's role. But this may be interpreted as “openness”, as the transient lack of preprofessional self-concept, and one may hope for favourable changes. We think that the fact that the majority of male students were ranged into this cluster may be related to the situation that they do not intend to work as teachers in the future. In this more pessimistic interpretation, this self-concept pattern may show the lack of commitment to or uncertainty in the profession, as it can be seen in the female subsample as well.

The aim of our present study was to explore the preprofessional self-concept of the students in a very early stage, at the very beginning of the training, when neither theoretical knowledge, nor practical experience is yet influential to

them. This timing may draw a clear map in this respect in a truly initial stage.

We think it necessary to pursue further investigations until some day we may get an answer to a very important question of how, through which stages, and along which processes the preprofessional self-picture of the students is subject to change.

We assume this to be important to know because positive preprofessional self-picture is an integral element of becoming a teacher. The training process itself is responsible for taking its proper role, for making its due contribution to helping the students in evolving a competent self-picture for their future profession.

REFERENCES

- AWANBOR, D. (1996). Self Concept and Nigerian Teacher-Trainees' Attitude Toward Teaching. *European Journal of Teacher Education*, 19, 1, 7-11.
- BERGMAN, L.R., EL-KHOURI, B.M. (1988). *SLEIPNER. A statistical package for pattern-oriented analyses*. Stockholm: Department of Psychology, Stockholm University.
- BURNS, R.B. (1982). *Self-Concept Development and Education*. London, New York, Sydney, Toronto: Holt, Rinehart and Winston.
- GREGORY, A., & ALLEN, D. I. (1978). Some effects of the practicum on the professional self concept of student teachers. *Canadian Journal of Education*, 3, 53-65.
- KULCSÁR, ZS. (1981). *Leary-teszt: Timothy Leary: "A személyiség interperszonális diagnózisa" című könyve alapján. Pszichológiai tanácsadás a pályaválasztásban. Módszertani füzetek. 3.* [Leary Test. After Timothy Leary: Interpersonal Diagnosis of Personality. Psychological Counseling in Career Choice. Methodological Booklets]. Budapest: Országos Pedagógiai Intézet.
- KULCSÁR, ZS. (1991). *Személyiség-pszichológia* [Personality Psychology] Budapest: Tankönyvkiadó.
- RÓKUSFALVY, P., STULLER, GY., & KELEMENNÉ TÓTH, É. (1981). *Pedagógusszemélyiség és Tanárképzés* [Teacher Personality and Teacher Training]. Budapest: Tankönyvkiadó.
- SECORD, P.F., & BACKMAN, C.W. (1972). *Szociálpszichológia*. [Social Psychology]. Budapest: Kossuth Könyvkiadó. Mezőgazdasági Könyvkiadó.

- SOARES, A.T., & SOARES, L.M. (1966). Self-description and adjustment correlates of occupational choice. *Journal of Educational Research*, 60, 1, 27-31.
- SOARES A.T., & SOARES, L.M.(1968). Self-perceptions of student teachers and meaningfulness of their experience. *Journal of Teacher Education*, 19(2), 187-191.
- SUPER, D.E. (1957). *Psychology of Careers: An Introduction to Vocational Development*. New York: Harper & Row, Publishers.
- VARGHA, A. (2000). *Matematikai statisztika pszichológiai, nyelvészeti és biológiai alkalmazásokkal*. [Mathematical statistics with Psychological, Linguistic and Biological Applications]. Budapest: Pólya Kiadó.
- VARGHA, A., & CZIGLER, B. (1999). *A MiniStat statisztikai programcsomag 3.2. verzió*. [MiniStat Statistical Program Pack]. Budapest: Pólya Kiadó.
- WALBERG, H.J. (1967). The structure of self-concept in prospective teachers. *Journal of Educational Research*, 61 (2), 84-86.
- WALBERG, H.J., METZNER, S., TODD, R.M., & HENRY, P.M. (1968). Effects of tutoring and practice teaching on self-concept and attitudes in education students. *Journal of Teacher Education*, 19 (3), 283-291.

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APPENDIX A

Sorted Rotated Factor Loadings (Pattern)

Items	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
48. Cooperative	.597	.000	.000	.000	.000	.000
71. Acknowledges others	.568	.000	.000	.000	.000	.000
77. Can be straight and honest	.564	.000	.000	.000	.000	.000
70. Always ready to accept advice	.546	.000	.000	.000	.000	.000
73. Able to give instructions	.520	.000	.000	.000	.000	.000
41. Encourages others	.505	.000	.000	.000	.000	.000
42. All-forgiving	.000	.564	.000	.000	.000	.000
11. Almost never answers back	.000	.532	.000	.000	.000	.000
91. Easy to lead	.000	.526	.000	.000	.000	.000
52. Too easily obeying	.000	.523	.000	.000	.000	.000
90. Often ashamed	.000	.506	.000	.000	.000	.000
72. Good leader	.252	.000	.565	.000	.000	.000
75. Acknowledged	.000	.000	.561	.000	.000	.000
126. Seems to be an important personality	.000	.000	.531	.000	.000	.000
109. Self-confident	.287	.000	.521	.000	.000	.000
35. Tries to satisfy everybody	.000	.000	.000	.000	.539	.000
46. Would like to be liked by everybody	.000	.000	.000	.000	.534	.000
30. Needs the love of everybody	.000	.000	.000	.000	.504	.000
117. Extremely indulgent	.000	.384	.000	.000	.000	.517
61. Trusts anybody	.000	.332	.000	.000	.000	.444
45. Spoils people with helpfulness	.000	.403	.000	.000	.000	.426
57. Over-compliant	.000	.421	.000	.000	.000	.371
97. Impatient with others' mistakes	.000	.000	.000	.479	.000	-.272
22. Does everything to be accepted	.000	.000	.000	.000	.433	.258
16. Merciless	.000	.000	.000	.407	.000	.000
8. Easy to concieve	.000	.495	.000	.000	.000	.000
103. Often unfriendly	.000	.000	.000	.409	.000	.000
78. Often needs help	.000	.399	.000	.000	.260	.000
12. Timid	.000	.450	.000	.000	.000	.000
20. Self-excusing	.000	.469	.000	.000	.000	.000
100. Readily takes care of others	.397	.000	.000	.000	.000	.000
39. Trusts people, tries to please everybody	.274	.000	.000	.000	.469	.000
65. Uncompromising, if needed	.383	.000	.370	.000	.000	.000
47. Attentive	.443	.000	.000	.000	.000	.000
26. Gives himself/herself without reservation	.393	.000	.258	.000	.000	.000
105. Dominant	.320	.000	.426	.000	.000	.000
15. Has low self-confidence	.000	.491	-.252	.000	.000	.000
64. Open and straight	.374	.000	.350	.000	.000	.000
23. Sceptical	.000	.000	.000	.399	.000	.000
32. Can't tolerate contradiction	.000	.000	.000	.387	.000	.000
44. Generous up to stupidity	.000	.395	.000	.000	.000	.000
34. Always nice and friendly	.000	.000	.432	-.270	.304	.000
118. Makes good impression	.329	.000	.440	.000	.000	.000
68. Often disappointed	.000	.450	.000	.279	.000	.000
59. Often amazing	.000	.000	.485	.000	.000	.000
58. Can be rigorous if needed	.458	.000	.000	.000	.000	.000
62. Protests against everything	.000	.000	.000	.407	.000	.000
95. Loving and understanding	.439	.000	.259	.000	.297	.000
33. Warm-hearted	.000	.000	.257	.000	.448	.000
108. Able to care for himself/herself	.496	.000	.000	.000	.000	.000
124. Inspires respect	.000	.000	.499	.000	.000	.000
125. Authoritarian	.000	.000	.000	.420	.000	.000
13. Easy to get embarrassed	.000	.397	-.284	.000	.283	.000
63. Able to criticize himself/herself	.474	.000	.000	.000	.000	.000
92. Likes to be cared for	.000	.418	.000	.000	.000	.000
81. Doesn't forget bad things	.000	.000	.000	.459	.000	.000
66. Determined, but just	.458	.000	.000	.000	.000	.000
50. Expects everybody's admiration	.000	.000	.000	.481	.000	.000
79. Often depressed	.000	.457	.000	.000	.000	.000
116. Helpful	.492	.000	.000	.000	.000	.000
Eigenvalue	6.786	6.075	5.060	4.645	4.105	2.751