Psychological researches have not yet managed to expressly clarify the roles of inheritance (genotype) and the environmental effects on the evolvement and development of personality.

Cloninger, in his integrative personality model, deems the roles of biological and genetic factors, as well as learning and social impacts equally important in the development of personality. While the factors of inheritance play a prominent role in the evolvement of temperament factors, learning and environment have the leading role concerning the character factors. Temperament is characterised by the conglomeration of response patterns given automatically to the emotional stimuli, while the character is featured by the conceptions and ideas formed about the self, others and the world. The differences occurring in the temperament factors can be observed already in the early infant age, the development of character however happens during the socialisation process through the socialising factors that the individual is exposed to. (Osváth, 2003).

Temperament and character jointly determine the personality as a whole. While from the constellations of temperament we may conclude to the predispositions of the person, socialisation and socio-cultural learning influence the evolution of the character constellations, thus based on these we may define the maturity of personality. (Rózsa et al, 2004).

The most important labour instrument of a pedagogue, or educator is his or her personality, the capability or incapability of which considerably influence the pedagogical effect as well as the efficiency of education and teaching, and the quality of the teacher-student relationship (Figula 2002).

According to G. Donáth (1997) a pedagogue with congruent and consistent personality and mature self-identity can educate and work really effectively.

Bugán (1997) deems it important that in a certain educational situation the pedagogue must be able to pay attention to the processes that take place in the students and in the pedagogue him/her/self, and to obtain deliberate access to his/her own and the student’s feelings and attitudes.

Beyond these the pedagogue’s personality shall also be the most important model in the life of a young personality being in the course of evolution besides the parents by conveying not only knowledge towards the students but also by teaching through the aim and the manner of the acts.

One of the most essential motives of the preparation for the pedagogue profession must be the aim to enable the personality of the pedagogue to satisfy the aforementioned requirements.
Preparation is the first step to obtain information on the personality of the pedagogue candidates, and also to define the orientation of the preparation process in order that the candidates can adequately occupy such a profession.

**Aim of the Survey**

The aim of our research was to examine whether the pedagogue candidates possess those temperament and character features that may serve as basis for the development of the aforementioned effective pedagogue personality.

Mass education characterises today’s system of advanced education to answer the needs towards an increasing rate of advanced level qualification. Such system is rather shifted towards quantitative education than a qualitative one. Unfortunately this tendency is also observable in the education of pedagogues. We were curious about the influence of such “dilution” tendency on the vocational capability of the pedagogue candidates.

**Sample and Methods**

Samples were taken in the framework of data collecting among the randomly selected students of the College of Nyíregyháza attending diverse teacher and infant teacher faculties. Participation was voluntary in each case with the consent of the students. The inquiries were filled in by the students in the form of lectures under the researchers’ control.

Five hundred pedagogue candidates were involved in the survey. The filled in questionnaires (inquiries) of 486 students were assessable. (336 females, 150 males).

Distribution among the faculties was the following: 225 persons studied to become teachers of humanities, 125 students studied to become teachers of some real subjects, 62 students studied to become teachers of arts (singing, drawing), and 74 students studied to become infant teachers.

The average of the age was 20.16 (standard deviation: 1.51), the median value was 20 years of age.

*During the research we used the following methods for the survey:*

1. The Hungarian version of Cloninger’s Temperament and Character Inventory adapted by Rózsa et al (Rózsa et al, 2004)

The altogether 240 items of the inventory compose main scales measuring 4 temperament and 3 character dimensions. These are the following:

Temperament scales:
- Novelty seeking
- Harm avoidance
- Reward-dependence
- Persistence

Character scales:
- Self-directedness
- Cooperativeness
- Self-transcendence

In Cloninger’s integrative personality model the biological and genetic factors, as well as learning and social impacts are deemed to be equally important in the development of personality. While the inherited aspects play a principal role in the development of the temperament factors, learning and the environmental influence play the main role in the case of the character factors. While the temperament is characterised by the automatic response
patterns given to emotional stimuli, the character is featured by the conglomeration of the conceptions formed of the self, of others and of the world. (Osváth, 2003).

Results

Cloninger’s Temperament and Character Inventory

In accordance with Cloninger’s theory, we may draw conclusions from the constellation of temperament to the predisposition of the personality, and to the rate of maturity from the constellation of the character. (Osváth, 2003).

We primarily took the character scales into consideration while carrying out our survey, and on the basis thereof we determined the rate of the personality’s maturity.

Cloninger considered the persons with low-self-directedness and low cooperativeness to be immature, in the case of whom the risk of the occurrence of diverse personality disorders was high. For making a distinction between the mature and immature characters he used the aggregate of the above median values. (Rózsa et al, 2004).

We did not apply the same method as it considered those persons also immature that reached a low score only at either of the scales nevertheless the aggregate of the scale values was below the sum of the medians. We considered those personalities immature characters who achieved low scores at both scales. We did not take the medians as basis for the calculation thereof but the quartiles. In the case of the immature personality the limit was drawn at the aggregate of the first quartile of the two scales (49 scores), and the persons who achieved lower scores than that were classified in the mentioned category. Immature characters were considered to be those persons who achieved higher scores than the aggregate of the third quartile (64 scores).

By this means we managed to classify 293 persons out of the entirety of the samples into either of the categories. Figure 1 demonstrates the number of the mature and immature characters in the total of the samples.
Considering each faculty separately the following proportions can be observed: at human faculties 72 mature, 64 immature; at real faculties 39 mature, 38 immature; at artistic faculties 18 mature, 14 immature; at the faculties for infant teachers to be 28 mature, 20 immature.

Figure 2 demonstrates the proportion of mature and immature characters per faculties.
It is illustrated in the diagram that the occurrence rate of mature characters was relatively higher in the case of persons studying to become art teachers. The next in the sequence was the rate of infant teacher students and then came the human and real sciences. The occurrence rate of the immature characters obviously showed a reverse sequence.

Figure 3 demonstrates the average values of individual temperament and character scales reached by the pedagogue candidates having immature and mature characters.

Figure 3

Average values of immature and mature characters achieved in the Temperament and Character Inventory
The comparative statistical surveys performed showed significant differences between the immature and mature pedagogue candidates along the following temperament scales:

- Novelty avoidance ($t=2.793, p<0.006$)
- Harm avoidance ($t=8.115, p<0.000$)
- Reward dependence ($t=9.061, p<0.000$)

The comparative statistical surveys performed showed significant differences between the immature and mature pedagogue candidates along the following character scales:

- Cooperativeness ($t=21.015, p<0.000$)
- Self directedness ($t=23.749, p<0.000$)

Table 1 demonstrates the features of persons who had achieved low or high scores at the individual scales. (Rózsa et al. 2004).

<table>
<thead>
<tr>
<th>TEMPERAMENT SCALES</th>
<th>THOSE WHO ACHIVED HIGH SCORES</th>
<th>THOSE WHO ACHIVED LOW SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harm avoidance</td>
<td>Pessimistic</td>
<td>Optimistic</td>
</tr>
<tr>
<td></td>
<td>Shy</td>
<td>Bold</td>
</tr>
<tr>
<td></td>
<td>Reserved</td>
<td>Straightforward</td>
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<tr>
<td></td>
<td>Fatigable</td>
<td>Pushing</td>
</tr>
<tr>
<td>Novelty seeking</td>
<td>Curious</td>
<td>Self-contained</td>
</tr>
<tr>
<td></td>
<td>Impulsive</td>
<td>Inflexible</td>
</tr>
<tr>
<td></td>
<td>Extravagant</td>
<td>Restrained</td>
</tr>
<tr>
<td></td>
<td>Short-tempered</td>
<td>Stoical</td>
</tr>
<tr>
<td>Reward dependence</td>
<td>Sentimental</td>
<td>Critical</td>
</tr>
<tr>
<td></td>
<td>Outspoken</td>
<td>Unsociable</td>
</tr>
<tr>
<td></td>
<td>Warm-hearted</td>
<td>Separate</td>
</tr>
<tr>
<td></td>
<td>Compassionate</td>
<td>Independent</td>
</tr>
<tr>
<td>Persistence</td>
<td>Diligent</td>
<td>Lazy</td>
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<td>Resolved</td>
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<td>Ambitious</td>
<td>Low-performing</td>
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<tr>
<td></td>
<td>Perfectionist</td>
<td>Pragmatist</td>
</tr>
<tr>
<td>Self-directedness</td>
<td>Target oriented</td>
<td>Motiveless</td>
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<td></td>
<td>Responsibility assuming</td>
<td>Accusing</td>
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<td></td>
<td>Adroit</td>
<td>Incompetent</td>
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<tr>
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<td>Acting aimlessly</td>
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<tr>
<td></td>
<td>Disciplined</td>
<td>Unmanageably</td>
</tr>
<tr>
<td>Cooperativeness</td>
<td>Warm-hearted</td>
<td>Intolerant</td>
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<tr>
<td></td>
<td>Empathic</td>
<td>Insensitive</td>
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<tr>
<td></td>
<td>Helpful</td>
<td>Malevolent</td>
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<tr>
<td></td>
<td>Compassionate</td>
<td>Revengeful</td>
</tr>
<tr>
<td></td>
<td>Virtuous</td>
<td>Opportunistic</td>
</tr>
</tbody>
</table>
Table 1
Features of persons who had achieved extreme scores at different temperament and character scales

On the basis of the temperament scales we may characterise a mature personality as follows:
- On the basis of the scores achieved at the scale of novelty seeking: reserved, restrained, inflexible, stoical
- On the basis of the scores achieved at the scale of harm avoidance: optimistic, bold, straightforward, pushing
- On the basis of the scores achieved at the scale of reward dependence: Sentimental, outspoken, warm-hearted, and compassionate.

On the basis of the temperament scales we may characterise an immature personality as follows:
- On the basis of the scores achieved at the scale of novelty seeking: curious, impulsive, extravagant, short-tempered,
- On the basis of the scores achieved at the scale of harm avoidance: pessimistic, shy, reserved, fatigable
- On the basis of the scores achieved at the scale of reward dependence: critical, unsociable, separate, independent

On the basis of the character scales the mature character can be featured as a target oriented, responsibility assuming, adroit, self-accepting, disciplined, warm-hearted, empathic, helpful, compassionate and virtuous personality. Thirty-one percent of the pedagogue candidates can be considered to be mature characters.

On the basis of the character scales the immature character can be featured as a motiveless, accusing, incompetent, acting aimlessly, unmanageable, intolerant, insensitive, malevolent, revengeful and opportunistic personality. It is appalling however, that the aforementioned characteristics are typical to 30% of the pedagogue candidates.

Summary

The results of the research unequivocally proved that the tendency described in the introductory part of this report being an accompanying phenomenon of the mass education also occurs in teacher training. Almost one third of the pedagogue candidates suffer from severe problems concerning their vocational eligibility.

This proposes the need for the targeted personality development of pedagogue candidates during their education. In itself the personality of a candidate will not become eligible to serve as an adequate labour instrument during the course of the career. An obligatory subject should be integrated into the teacher education the aim of which should be the development of the pedagogue candidate’s personality.
The satisfaction of the above needs is served in the current pedagogue education system by the optional subjects (such as self-knowledge, development of communication skills, conflict management, etc.), in Hungary.

The results of this survey propose the need for a more intensive education system in increased number of lessons that would serve more properly the development of the self-knowledge and vocational eligibility of pedagogue candidates.

Bibliography


