

Thesis of Doctoral (PhD) Dissertation

DEVELOPMENT OF LEARNING CHARACTERISTICS OF STUDENTS AGED 10-14 PARTICIPATING IN DIFFERENTIATED DEVELOPMENT

Ms. Erzsébet Lestyán

Consultant: Dr. Habil Imre Dávid



UNIVERSITY OF DEBRECEN

Within the framework of

Doctoral School of Human Sciences

(and its psychological programme)

2018, Debrecen

1. The objectives and subject of the thesis

As a subject of our thesis we have chosen the psychological impact assessment of differentiated development, more precisely the study of the characteristics of learning. We have done so partly because we may be able to widely read about the efficiency (based mainly on practice) of differentiated development in the literature but the perspective of its psychological background is absent and partly because we strongly believe that differentiated development improves learning characteristics – naturally, this still needs to be proved.

The writing of our thesis was inspired by this desire of providing proof. Our focus was school education as differentiated development and learning, to what extent it influences the learning characteristics of students and what answers psychology could provide to the above.

We considered, however, that a longitudinal study would be required to capture these, therefore we monitored the same students for four years – from 5th grade to the 8th grade. Due to the importance of comparability, we worked with a control group alongside the experimental group. This thesis contains the observations drawn from these studies.

The main aim of the study was to monitor the learning characteristics of students in differentiated development in the senior section of elementary school from 5th grade to the 8th grade. Our study was intended to explore to what extent the learning characteristics of students in continuous differentiated development (experimental group) change in comparison with their peers not participating in differentiated development (control group). The justification for raising this issue is that although we may be able to read widely about the justification, practical solutions and efficiency of this classroom management method in the literature of differentiated development, it is still unclear what psychological changes (their extent and nature) may be found behind the efficiency.

Hypotheses examined in the thesis:

Hypothesis 1. (H1): The continuous differentiated development was hypothesized to result in a more positive change in the case of all monitored characteristics (learning motivation, attitude, orientation and creativity) than traditional education.

Hypothesis 2. (H2): The level of motivation was also hypothesized to increase in the experimental group in grades 7-8 as opposed to the control group where it has been observed to stagnate or decrease.

Hypothesis 3. (H3): comprehensive learning orientation was hypothesized to be the most characteristic with control groups students due to the effect of continuous differentiation.

Hypothesis 4. (H4): it was also hypothesized that with age, inquiry, cognitive independence and endurance would increase.

2. Applied methodology

Study sample and variables

The experimental group included 177 students (male: 86; female: 91), whereas the control group also consisted of 177 students (male: 83; female:94). At the time of the input measurement, the students were in the 5th grade (aged 10-11) while at the end of the study they were in the 8th grade (aged 14-15).

Study variables:

- Learning motivation,
- Learning orientation,
- Learning style,
- Creativity,
- Attitude towards learning

Methodology:

- Consultation with the teachers
- Observation
- Questionnaires and tests
 - Learning motivation measured by Kozéki–Entwistle questionnaire
 - Learning orientation measured by Kozéki–Entwistle questionnaire
 - Learning style measured by Szitó questionnaire
 - Creativity measured by creativity estimation scale (TKBS) by Toth
 - Learning attitude measured by the Kósáné, Porkolábné and Ritoókné method

3. Thesis enumeration of the results

Results of H1:

With regard to learning motivation, based on variance analyses it may be concluded that the efficiency of differentiated development is significant in grades 5 and 6. Later a smaller positive change could be observed among the students in the experimental group. During the course of time, the values of the experimental group in all motive groups indicate greater improvement than those of the control group.

With regard to learning attitude, based on variance analyses it may be concluded that the efficiency of differentiation is significant in grades 7 and 8 because a positive change occurred in the experimental group in the denoted period. During the course of time, the

values of the experimental group in “further education, success, secondary education) attitudes indicate greater improvement than those of the control group.

Examining learning orientation and comprehensive orientation - focusing on the three main dimensions – an intensive increase may be observed between the first, the second, the third and the fourth measurements among males and females participating in differentiated development. Also, a significant increase may be observed between the fourth and the fifth measurements. It can be concluded that the males and females learning in the experimental (developmental) group improved in the same way in the time passed.

Examining the reproductive learning orientation in the case of the second main dimension, it may be concluded that in the case of the developmental group none of the independent variables nor the interaction is significant ($p < 0,05$). With regard to males, an increase may be observed between the first and the third measurement. On the other hand, this change is almost insignificant as between the fourth and fifth measurement, the values decreased. With regard to females, an increase may be observed at the first, second, third and fourth measurement then a significant decrease at the fifth. The values of the reproductive elements decreased in the case of both sexes. This is a positive result since it indicates that the elements of mechanical learning diminished, the students were less inclined to learn by ‘swotting’.

Examining the organized orientation in the case of the third main dimension, an intensive increase may be observed between the first, the second, the third, the fourth and the fifth measurements among males and females participating in differentiated development. This may indicate that during the course of time, the students strive more and more to fulfil the requirements of the teacher to the best possible degree. It can be concluded that the males and females learning in the experimental (developmental) group improved in the same way during the course of time.

When considering the results of the creativity study in the dimension of nonconformity, it may be concluded that in the case of the developmental group, a continuous increase may be observed between measurements whereas in case of the control group, the values of the graph are rather unsteady. In the case of the *complexity preference*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the measurement results of the experimental group an increase may be observed. When studying *independent cognition* in the case of the experimental group, it may be concluded that the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. The students of the experimental group indicated much higher results after the

third measurement than those of the control group. In the case of *impatience*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. Based on the measurements it may be concluded that impatience is much more prevalent in the control group than in the group participating in differentiated development. In the case of motive group of assertiveness, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the developmental group, a continuous increase may be observed when conducting measurements. In the case of both groups in the dimensions of *inquiry* and *curiosity*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the developmental group, a continuous, steady increase may be observed from the third measurement. In the case of the dimensions of *originality* and *creativity*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the developmental group, an increase may be observed. In the case of *endurance*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the developmental group, an intensive increase may be observed between the first and the fourth measurement. When examining *playfulness* and *humour*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the developmental group, a continuous increase may be observed between the input and output measurements.

Based on the results above, we may conclude that **our first hypothesis was proven.**

The results of H2:

In the case of the *follower motive group*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the both groups, an increase may be observed between measurements. In the case of the experimental (developmental) group the increase is very steady whereas in the case of the control group it is much smaller. In the case of the experimental group an increase may also be observed between the second and the third measurement, the degree of change at the fourth and fifth measurement is almost insignificant.

In the case of the control group, the results at the third, fourth and fifth measurement are very unsteady and a very insignificant change may be observed.

In the case of the *inquirer motive group*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In both groups, an increase may be observed at measurements. In the case of the experimental group a rather intensive increase may be observed between the first and the second measurement, in the case of the control group, it is much smaller. In the case of the experimental group a rather intensive increase

may be observed also between the second and the third measurement. The degree of change at the fourth and fifth measurement is almost insignificant. In the case of the control group, the results at the third, fourth and fifth measurement a very insignificant change may be observed.

In the case of the *performer motive group*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In both groups, an increase may be observed at measurements. In the case of the experimental group, a quite steep increase may be observed in the values of the graph between the first and the second measurement. In the case of the control group, this is much less significant. In the case of the experimental group an intensive increase may also be observed between the second and the third measurement, whereas the degree of change is almost insignificant at the fourth and fifth measurement. In the case of the control group, there is hardly any change in the results of the third, fourth and fifth, they fluctuate and the mean of motivation value increases only to a little extent.

Based on the results above, we may conclude that **our second hypothesis was not proven** because in neither motive group, in grade 7 and 8, the level of motivation did not increase more in the experimental group than in the control group.

The results of H3:

In the case of the comprehensive learning motivation, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the case of the control group, a very steep increase may be observed between the first and the second measurement, whereas the degree of change is almost insignificant in the case of the other measurements.

In the case of students participating in differentiated development, an intensive increase may be observed between the first, second, third and fourth measurement. In the case of the fourth and fifth measurement a significant increase may be observed as well. It may be hypothesized that due to the effect of the programme, comprehensive learning orientation is the most characteristic among the students of the experimental group.

It may be concluded that **our third hypothesis was proven**.

The results of H4:

When examining independent cognition in the case of the developmental group, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the case of the developmental group a continuous decrease may be observed between the first, second and third measurements. In the case of the control group, when studying the same measurements, an almost insignificant degree of change may be observed.

In the results of the third and fourth measurement, in the case of both groups a very intensive increase may be observed then an almost insignificant degree of change, in the case of both groups between the fourth and the fifth measurement. It may be concluded in the case of both groups that independent cognition develops the most intensively between grade 7 and 8. It may also be observed that the experimental and the control group did not develop at the same pace in the time passed as the students of the experimental group produced much higher results after the third measurement than those of the control group. So it may be hypothesized that a continuous differentiated development may result in positive changes in the independent cognition of students.

In the case of the *endurance*, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. In the case of the experimental group an intensive increase may be observed between the first and the fourth measurements. An almost insignificant degree of change may be observed between the fourth and the fifth measurement. In the case of the control group a moderate increase may be observed between the first and the third measurement. Between the third and the fourth one, a very intensive increase may be observed. In the case of output studies, the values of the control group significantly decreased. It may be concluded that the students of the experimental and the control group did not improve in the same way in the time passed. Based on the above, the success of differentiated development may be considered likely. When concluding measurements, the ability to remain on the basis of reality but in the proximity of the problem, is characteristic of the developmental group.

In the case of the *inquirer* and *curiosity*, in the case of both groups, the effect of the independent variables (group, time) and the interaction ($p < 0,05$) are both significant. The experimental group indicated a fluctuating then continuously increasing results between the first and the third measurements. The control group indicated a slightly decreasing result between the first and the third measurement, a slightly increasing one at the fourth measurement and at the fifth measurement, an intensive decrease may be observed. The experimental group indicated a continuous, steady increase and improvement from the third measurement.

To sum it up, **our fourth hypothesis was proven** because the students in the experimental group indicated a positive improvement in the main three dimensions when compared to the control group.

Discussion

The development of learning motivation

If the results with regard to this dependent variable are considered, it soon becomes obvious that a significant change is indicated in all three main dimensions in the case of the experimental group whereas with the control group it is not indicated with either of them. The experimental group could easily be credited for that, but the details make this straightforward conclusion more sophisticated. If the degree of the change is taken into account, it turns out that the most significant change in the experimental group occurred in the *inquirer* and less in the *performer* main dimensions, that is, there is none in the *follower* one. In spite of having a significant difference between the input and output value in the case of the third main dimension, the degree of change is actually small therefore there is no reason to consider its analysis.

However, a significant difference may be detected in the case of the inquirer main dimension between the two sexes: males indicate a more than threefold development than females. The main component of this may be the inquiring subdimension. As this subdimension in the case of males of the control group is much smaller between the input and output, we have to hypothesize that it is not age characteristic but the males in the experimental group were made more inquisitive by the experimental programme, in other words this phenomenon is the result of the differentiated development which seems to have a greater effect on males than females.

The performing main dimension indicates the same phenomenon. The males in the experimental group show a nearly twofold development when compared to those in the control group, that is, the males in the experimental group became more motivated to perform. If we look more closely, the subdimension of the need for responsibility is represented in the biggest ratio. Therefore, it has to be concluded that the males of the experimental group - to a large extent - became more motivated to perform because a greater sense of responsibility was developed in them by differentiated development.

A possible explanation for the fact that no significant change can be measured in the case of the follower main dimension despite the significant difference might be that in this age group, the need for emotional detachment from the parents is not yet at the forefront: students (also) study to be loved, accepted and to feel the belonging to someone. This motive group does not significantly change until the end of grade 8.

The development of learning orientation

A striking change may be observed along the *comprehensive* main dimension. The students of the experimental group are ahead with 6 points over the ones in the control group and contrary to what may be observed in the case of motivation, this is characteristic of males and females as well. In other words, the demand in the experimental group to comprehend the material in-depth, interpret what they acquired in the lessons and read in the course book and find explanations to phenomena in the course of learning, increased significantly.

No such change may be observed with the control group, they remain at the same level until the end of grade 8. There may be only one explanation to the above: differentiated development largely promotes the formation and development of comprehensive learning.

There is also a difference in the case of the *organiser* main dimension between the two groups for the experimental one, although this difference may not be as significant as in the case of the comprehensive main dimension. The change of these two main dimensions is, in our viewpoint, the result of differentiated development.

However, differentiated development had hardly any effect on *reproductive* main dimension. The minimal difference may derive from the fact that the reproductive tendency slightly grows with both groups for four years but then they take different directions: the experimental group has a slightly decreasing tendency whereas the control one retains the slightly increasing one. All in all, it has to be stated that differentiated development did not practically change the degree of reproductive learning. In our view this might be explained by the fact that during their studies at school, students are obliged to swot certain things and have to be able to recite them without any changes. This may not be avoided irrespective of the educational method chosen by the teacher.

The development of learning style

Out of the learning characteristics examined by our study this was the only one that did not provide an informative picture about the changes. The difference namely between the two groups is minimal in all the four grades. It is difficult to conceive that by the fifth grade, all students may have formed their learning style and it will remain the same way because on one hand, of their age, on the other hand, the growing amount of learning material and the ever-stricter requirements from grade to grade. Differentiated development seems not to play a role in it. Or, the method of measurement might not differentiate properly, not fulfilling the function it is supposed to.

The development of creativity

Out of the twelve dimensions of the measurement method, three were found to have indicated greater change in the experimental group. These were: *independent cognition*, *assertiveness* and *endurance*. Greater changes were also detected in the control group with the following dimensions: *impatience*, *assertiveness* and *curiosity, inquiry*. Assertiveness may be common out of these, which in all likelihood is not the result of differentiated development but that of *age characteristics*. However, the development of *independent cognition* and *endurance* in the experimental group could be attributed to differentiated development.

It is important to note that *curiosity* and *inquiry* changed negatively in the control group, that is, the output value is lower than the input one. This statement slightly contradicts the main dimension of *inquiry*, in which no negative development may be detected although the positive development is well below of that of the experimental group.

It is also interesting to note that no change can be detected in *energy*: the input and output values are practically the same in both groups. In our view, there should be an increase in energy but due to the beginning of adolescence this energy is divided: a part of it is focused on school work while the other part on introspection.

It is difficult to state why *impatience* grew with the students of the control group. Differentiated development may possible have elements that develop the ability of patience but other explanations are also viable.

The development of learning attitude

When learning attitude is compared in the two groups, it becomes apparent that in the control group, only one component achieves a 1-point change: *taking the right position in the class*. As this is also observable with the experimental group, we have to hypothesise that the demand to be ‘somebody’, ‘a personality’ and take a better position, be respected and be better at something than others in the class grows stronger with age.

Contrary to the above, in the experimental group four components out of the six attitude components had an increase of more than one point which might indicate that differentiated development influenced learning attitudes positively. These will not be enumerated here because it might be more interesting which attitude components indicate the smallest increase. These are: *good grade in school*, *reward in the family*. In the case of the six attitudes, there is no significant difference with regard to any of these between the two groups.

4. Summary

The most important objective of our study was to explore to what extent differentiated development influences the development of certain learning characteristics of students in senior section. We hypothesized that differentiated development is more beneficial for the selected learning characteristics. The effectiveness of differentiated development is not contested in pedagogy, however with regard to learning characteristics, no psychological studies have been conducted therefore the research introduced in this thesis may by all means be regarded as novel.

The circumstance that our research was longitudinal, that is, the two selected samples of students were followed from grade 5 to 8 may also be considered novel. By doing so, comparisons of not only cross-sectional but also longitudinal nature became possible. Both the experimental and the control group had 177 students. In fact, the number of students tested were higher but we only included the results of those in the analysis who participated in all studies during the four years.

It might also be considered novel that the sampled students did not come from one school, not even one settlement but from different schools from several settlements. Still, we are aware that the samples might not be considered representative, however, we thought that this way of sampling might reflect reality more than sampling students from the same school of one settlement.

The programme of differentiated development (broken down to the detail of lesson plans) was partly developed by us partly by the departments of our faculty with regard to general subjects. The programme – broken down to months – were sent to the classes of the selected school whose teachers agreed to apply differentiated development for four years.

In general, with regard to our results it might be claimed that differentiated development - to different degrees in different psychological areas – supports the development of learning characteristics. In other areas the influence of age characteristics might be stronger.

4. Implications for researchers, developers, pedagogues and education

At the beginning of our study, getting to know the students was considered very important. To achieve this, at the beginning of grade 5, the differences between students and their individual characteristics were studied. This information proved to be extremely useful when developing our system of differentiated pedagogical activities. During the years, we strived to work out a practice which focuses on the individual needs of the child, their individual learning paths,

cognitive skills, abilities and their development. All these served as a foundation for learning achievements and capacities of students.

Based on not only the results of the study but also on our own observations and the consultation and continuous contact with the pedagogues, it may be claimed that we consider the efficient application of differentiated development important in the future as well.

In order to have differentiated development fulfil its role, we have to get to know the different sociocultural backgrounds, individual abilities, motivation and interest of students so that every child can develop in a learning environment and conditions in accordance with their abilities.

By doing so, we support the development of child's personality and abilities.

Publications that serve as a basis for this PhD thesis

Here come publications or certifiably accepted (by publisher) publications of the author concerning the topic of the thesis with indication of page numbers;



Registry number: DEENK/139/2018.PL
Subject: PhD Publikációs Lista

Candidate: Erzsébet Lestyán
Neptun ID: FII628
Doctoral School: Doctoral School of Human Sciences
MTMT ID: 10024379

List of publications related to the dissertation

Hungarian book chapters (4)

1. **Lestyán, E.:** Képesség- és tanulási stílus fejlesztése az iskolában.
In: Kutatók a kiterjesztett tehetségfejlesztésért / lekt. Borbély Attila, Dávid Imre, Koncz István, GFF PK, Szarvas, 19-22, 2014.
2. **Lestyán, E.:** Tanulási stratégiák a differenciált fejlesztésben.
In: Eltérő bánásmódot igénylő gyerekek a magyar közoktatásban. Szerk.: Karlovitz János, Neveléstudományi Egyesület, Budapest, 65-72, 2010, (Neveléstudományi Egyesület kiskönyvtára, 2061-5329 ; 4.) ISBN: 9789638842251
3. **Lestyán, E.:** A differenciált oktatásban a tehetség azonosításának és fejlesztésének lehetőségei.
In: Közös gondolatok. Szerk.: Gabóda Béla, Lipcsei Imre, PoliPrint, Ungvár, 144-153, 2009. ISBN: 9789667966805
4. **Lestyán, E.:** A tanulási stílusok és stratégiák fejlesztése a personal pedagógiában.
In: Új utak az anyanyelvi nevelésben és pedagógusképzésben. Szerk.: Benczik Vilmos, Trezor K., Budapest, 89-97, 2008. ISBN: 9789638144331

Foreign language international book chapters (1)

5. **Lestyán, E.:** Orientation and the role of motivation for effective differentiated learning.
In: Edukacja w kreowaniu współczesnej rzeczywistości : możliwości i ograniczenia / pod red. Elżbiety Jaszczyszyn, Jolanty Szady-Borzyszkowskiej, Instytut Pedagogiki Wydziału Humanistycznego Uniwersytetu Przyrodniczo-Humanistycznego, Siedlce, 235-241, 2013. ISBN: 9788393663514

Hungarian scientific articles in Hungarian journals (2)

6. Nagy, E., **Lestyán, E.**, Vass, V.: Kicsit másképp.
Tanítás-Tanulás. 9 (4), 6-7, 2011. ISSN: 1785-1033.
7. **Lestyán, E.:** Tanulási módszerek és motiváció az eltérő képességű tanulók fejlesztésében.
Diskurzus (Szarvas). 10, 71-80, 2009. ISSN: 1589-2662.





Foreign language scientific articles in international journals (1)

8. **Lestyán, E.:** Le défi d'enseigner a différents niveaux en même temps.
Rev. Int. Sci. Hum. Nat. 12, 71-78, 2012. ISSN: 2235-2007.

List of other publications

Hungarian books (2)

9. **Lestyán, E.,** Szabóné Balogh, Á. M.: Képességfejlesztés az alsó tagozaton. Szegedi Tudományegyetem, Szeged, 2015.
10. Kós, N., **Lestyán, E.,** Hunya, T. T.: Kompetenciafejlesztő játékok az 1-4. évfolyam számára. 2. kiad., Apáczai K., Celldömölk, 101 p., 2011. ISBN: 9789634653219

Hungarian book chapters (7)

11. **Lestyán, E.:** Motiváció és differenciált képességfejlesztés.
In: A felsőoktatásban tanulók és tanáraik személyiségét érő új kihívások és kezeléseik.
Szerk.: Koncz István, Professzorok az Európai Magyarországért, Szarvas ; Budapest, 60-64, 2011. ISBN: 9789638843333
12. **Lestyán, E.:** A korai tehetség azonosítása és fejlesztése.
In: Tehetségkutatás határon innen és túl. Szerk.: Mező Ferenc, Kocka Kör, Debrecen, 69-73, 2010. ISBN: 9789638748881
13. Bontovics, I., **Lestyán, E.:** Képességek fejlesztése matematika órán.
In: Módszertani jegyzetek 1.. Szerk.: Sipos Lászlóné, Szent István Egyetem Pedagógiai Kar Kárpát-medencei Magyar Pedagógusok Módszertani és Kutatási Központja, Szarvas, 84-96, 2010. ISBN: 9789638773586
14. **Lestyán, E.:** A tehetség megnyilvánulása az óvodáskorban.
In: Sporttudomány, neveléstudomány a gyakorlatért : 37. Mozgásbiológiai Konferencia : Tessedik Sámuel Főiskola Pedagógiai Főiskolai Kar Szarvas, 2007. november 15-16..
Szerk.: Keresztesi Katalin, Tessedik Sámuel Főiskola Pedagógiai Főiskolai Kar, Szarvas, 127-132, 2008. ISBN: 9789638773531
15. **Lestyán, E.:** Tehetség azonosítása és fejlesztése.
In: A tudomány az élhető Földért : A Magyar Tudomány Hete 2008 Konferenciasorozat
Szerk.: Kovács Dóra, Rádai Levente, Dunaújvárosi Főiskola Kiadói Hivatala, Dunaújváros, 97-107, 2008, (A Dunaújvárosi Főiskola Közleményei, ISSN 1586 8567 ; 30/2)
16. **Lestyán, E.:** Tehetség azonosítása és fejlesztése.
In: Tehetséggondozás. Szerk.: Szakács Mihályné, Gaál Sándorné, Tessedik Sámuel Főiskola Pedagógiai Főiskolai Kar, Szarvas, 21-34, 2008. ISBN: 9789638783548





17. **Lestyán, E.:** Tehetséggondozás az alsó tagozaton.

In: Tantárgy-pedagógiai kutatások. Szerk.: Albertné Herbszt Mária, Eötvös József Főiskola, Baja, 63-71, 2005. ISBN: 9637290311

Foreign language international book chapters (3)

18. **Lestyán, E.:** Development opportunities for skills in school.

In: Der Mensch und die Werte. Eds.: Alzbeta Bastová, Zuzana Brciaková, Marcela Dul'ová, Pedagogische Fakultät, Institut Páles verblasst im Levoca und Uczelnia Nauk Spolecznych, Łódź, 123-130, 2013. ISBN: 9788361095460

19. **Lestyán, E.:** Motivation and differentiated ability development.

In: Közös horizont. Szerk.: Orosz Ildikó, Lipcsei Imre, Szent István Egyetem Pedagógiai Kar : II. Rákóczi Ferenc Kárpátaljai Magyar Főiskola, Ungvár, 77-84, 2011. ISBN: 97896625950903

20. **Lestyán, E.:** Learning methods and motivation is the development of students with different abilities.

In: Tudomány az oktatásért - oktatás a tudományért. Szerk.: Ladislav Baráth, Ildikó Viczayová, Univerzita Konstantina Filozofa V Nitre, Nitra, 143-151, 2010. ISBN: 9788080948047

Hungarian scientific articles in Hungarian journals (13)

21. Kós, N., Szabóné Balogh, Á. M., **Lestyán, E.**, Harsányiné Petneházi, Á.: A folyamatos differenciált foglalkoztatás hatása a közösség iránti beállítódás alakulására felső tagozatos tanulóknál.

Különleges bánásmód. 3 (3), 7-25, 2017. EISSN: 2498-5368.

DOI: <http://dx.doi.org/18458/KB.2017.3.7>

22. **Lestyán, E.**, Szabóné Balogh, Á. M.: A motiváció fejlesztése 10-14 éves korban differenciált foglalkoztatási programban résztvevő tanulóknál.

Különleges bánásmód. 3 (3), 67-78, 2017. EISSN: 2498-5368.

DOI: <http://dx.doi.org/10.18458/KB.2017.1.67>

23. Harsányiné Petneházi, Á., Páskuné Kiss, J., **Lestyán, E.**, Kós, N., Szabóné Balogh, Á. M.: Hátrányos helyzetű tanulók szociális és érzelmi intelligenciájának vizsgálata az Arany János Tehetséggondozó Programban.

Magyar Pszichológiai Szemle. 72 (4), 463-489, 2017. ISSN: 0025-0279.

24. **Lestyán, E.:** A tehetség azonosításának és fejlesztésének lehetőségei.

Diskurzus (Szarvas). 9, 59-70, 2008. ISSN: 1589-2662.

25. **Lestyán, E.:** Tehetség azonosítása és fejlesztése.

Dunaújv. Főisk. közl. 30 (2), 97-106, 2008. ISSN: 1586-8567.

26. **Lestyán, E.:** A differenciált fejlesztés lehetőségei általános iskola felső tagozatában.

Dunaújv. Főisk. közl. 29 (2), 83-88, 2007. ISSN: 1586-8567.





27. **Lestyán, E.**: Tanulási stratégiák a fejlesztő pedagógiában.
Diskurzus (Szarvas). 8, 165-176, 2007. ISSN: 1589-2662.
28. **Lestyán, E.**, Szabóné Balogh, Á. M.: Differenciált fejlesztés lehetőségei általános iskola felső tagozatában, különös tekintettel a tanulási stratégiákra és a számítógépes lehetőségekre.
ÓTE tükkörkép. 2006, 239-254, 2006. ISSN: 1589-1488.
29. **Lestyán, E.**, Szabóné Balogh, Á. M.: Differenciált fejlesztés lehetőségei általános iskola felső tagozatában, különös tekintettel a tehetségre.
Diskurzus (Szarvas). 2006, 25-37, 2006. ISSN: 1589-2662.
30. **Lestyán, E.**, Szabóné Balogh, Á. M.: Differenciált fejlesztés a szarvasi Benka Gyula Evangélikus Általános Iskolában.
Diskurzus (Szarvas). 2005, 41-44, 2005. ISSN: 1589-2662.
31. **Lestyán, E.**, Szabóné Balogh, Á. M.: Tehetségfejlesztés és felzárkóztatás a szarvasi Benka Gyula Evangélikus Általános Iskolában.
ÓTE tükkörkép. 2005, 168-172, 2005. ISSN: 1589-1488.
32. **Lestyán, E.**: Differenciált munkaformák alkalmazása az alsó tagozatos oktatásban.
Diskurzus (Szarvas). 4, 252-266, 2004. ISSN: 1589-2662.
33. **Lestyán, E.**: Tehetséggondozás az alsó tagozatban.
Diskurzus (Szarvas). 3, 119-130, 2003. ISSN: 1589-2662.

Foreign language scientific articles in international journals (2)

34. Szabóné Balogh, Á. M., **Lestyán, E.**: Differentiated development in the school in particular motivation.
Journal of Preschool and Elementary School Education. 2 (6), 99-117, 2014. ISSN: 2084-7998.
35. **Lestyán, E.**: The effect of differentiated education in school.
Studia Scientifica Facultatis Paedagogicae. 10, 82-94, 2011. ISSN: 1336-2232.

Hungarian conference proceedings (1)

36. **Lestyán, E.**: Differenciált fejlesztés a közoktatásban.
In: VIII. Nemzetközi Tudományos Tantárgypedagógiai Konferencia : Baja, 2009. november 19-20.. Szerk.: Herbszt Mária, Tóth Sándor, Eötvös József Főiskola, Baja, 463-468, 2010.
ISBN: 9789637290732



The Candidate's publication data submitted to the iDEa Tudóstér have been validated by DEENK on the basis of Web of Science, Scopus and Journal Citation Report (Impact Factor) databases.

08 May, 2018