

378.147
DOI 10.18413/2712-7451-2020-39-4-600-607

, 414056, . . . , 20
E-mail: n.k.bogashova@mail.ru; nsmimova08@bk.ru

39-4-600-607', 39 (4): 600-607. DOI 10.18413/2712-7451-2020-

Modeling the process of formation of educational motivation of students on the basis of project activities in the study of biology

Nadezhda K. Bogashova, Natalia V. Smirnova
Astrakhan State University,
20a Tatischeva St, Astrakhan, 414056, Russia
E-mail: n.k.bogashova@mail.ru, nsmirnova08@bk.ru

Abstract. The motivational system explains the real activity of the student and determines the prospect of its development. A significant disadvantage of most existing theories and expert opinions is the lack of consistency in the formation and development of motivation, which makes the problem of motivation seem unsolvable. In this regard, the authors use the method of modeling the process of formation of students' educational motivation, which allows you to holistically display all the properties, relationships and relationships between the elements of the object under study. The problem of students' motivation and the factors influencing its formation, the specifics of the motives of educational activities are considered. The essence of the concept "modeling" is defined. The structure of the model of formation of

educational motivation using the project method is presented. The advantages of project activity in pedagogical practice are described. The main components of the model and their interaction mechanisms are characterized. It is concluded that the use of the model proposed by the authors in the educational process will contribute to the correct formation and consistent development of motivation in the educational process, which will lead to successful completion of all forms of control in biology by students and, in General, to a high level of development of the main professional educational program.

Keywords: model, motivation, pedagogy, modeling, project learning.

For citation: Bogashova N.K., Smirnova N.V. 2020. Modeling the process of formation of educational motivation of students on the basis of project activities in the study of biology. Issues in Journalism, Education, Linguistics, 39 (4): 600-607 (in Russian). DOI 10.18413/2712-7451-2020-39-4-600-607

[1982], . . .

[1986], . . .

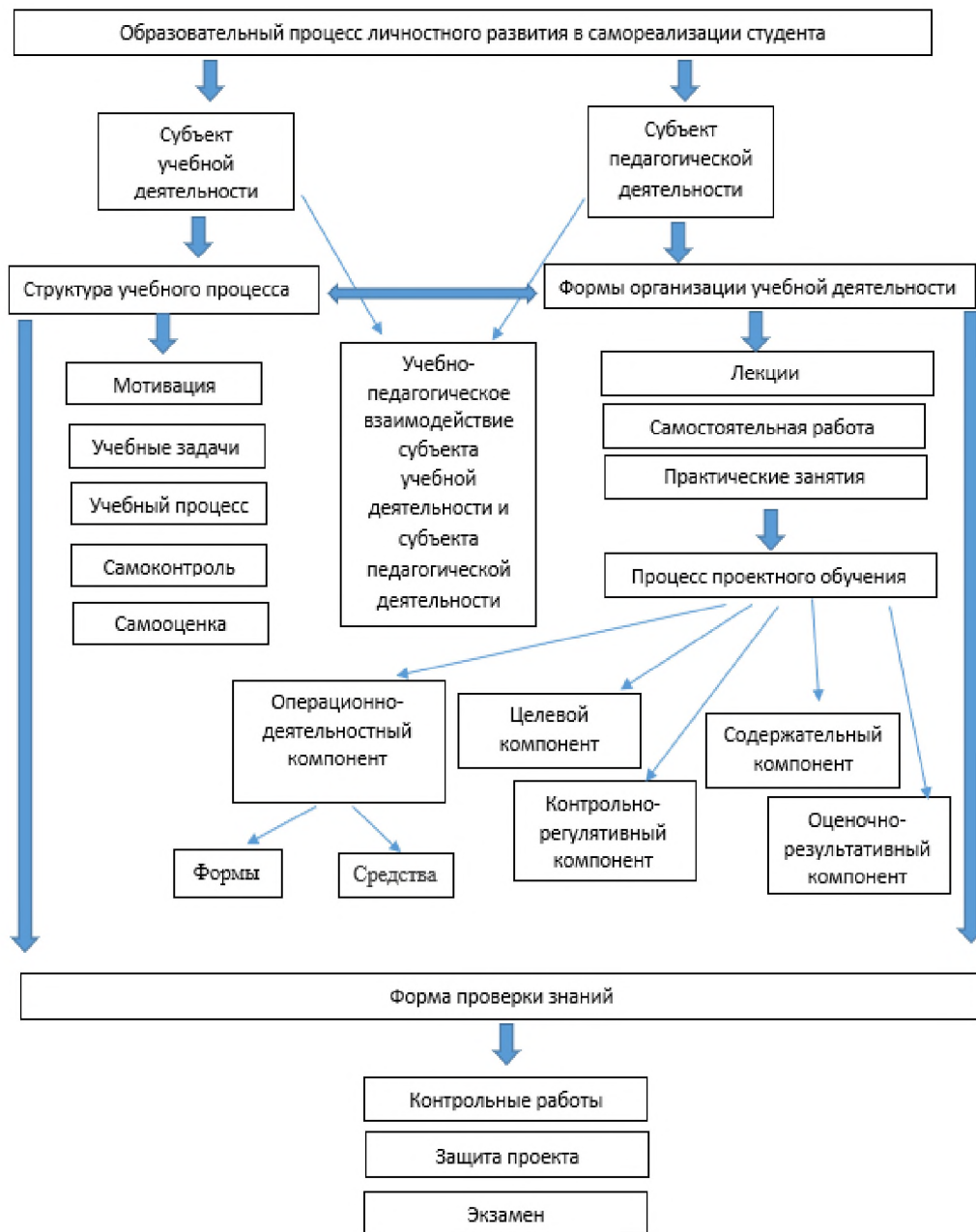
[2001], . . .

[1973], . . .

[2012],

(.1).

[2002],



. 1.

Fig. 1. Diagram of the model for the formation of educational motivation in students based on project activities in teaching biology

); (

); (

); [, 1989].

« »

[, , 2008].

« »

« »

[, , 1988;

, 2007]. Ryan, Deci [2000]

[Deci, 1971; , 2003].

.) [, 1979; , 1985].

Homo Sapiens

1. . . . 1982.
2. . . . 192 . . . 1989.
3. . . . 2007. . . . , 400 .
4. . . . 2002. . . . : . . . , 4: 22-26.
5. . . . 1985. . . . , 5: 162-168.
6. . . . 1973. . . . : 185-191.
7. . . . 2001. . . . , 66 .
8. 1990. . . . , 191 .
9. . . . 1979. . . . , 48 .
10. 2008. . . . , 574 .
11. . . . 1986. . . . , 152 .
12. . . . 1988. . . . , 175 .
13. . . . 2003. . . . ; . . . , 860 .
14. . . . i . . . 1. . . . 2012. . . . - i i . . . , 368 .
15. Benware C.A., Deci E.L. 1984. Quality of learning with an active versus passive motivational set. *American Educational Research Journal*, 21 (4): 755-765. DOI: <https://doi.org/10.3102%2F00028312021004755>
16. Boggiano A.K., Flink C., Shields A., Seelbach A., Barrett M. 1993. Use of techniques promoting students' self-determination: Effects on students' analytic problem-solving skills. *Motivation and Emotion*, 17 (4): 319-336. DOI: <https://doi.org/10.1007/BF00992323>
17. Deci E.L. 1971. Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18(1): 105-115. DOI: <https://doi.org/10.1037/h0030644>
18. Flink C., Boggiano A.K., Barrett M. 1990. Controlling teaching strategies: Undermining children's self-determination and performance: Correction to Flink et al. *Journal of Personality and Social Psychology*, 59 (6): 916-924.



19. Grolnick W.S., Ryan R.M. 1987. Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology*, 52 (5): 890-898. Doi:10.1037/0022-3514.52.5.890
20. McGraw K.O., McCullers J.C. 1979. Evidence of a detrimental effect of extrinsic incentives on breaking a mental set. *Journal of Experimental Social Psychology*, 15 (3): 285-294.
21. Patrick C.J., Bradley M.M., Lang P.J. 1993. Emotion in the criminal psychopath: startle reflex modulation. *Journal of Abnormal Psychology*, 102 (1): 82-92. DOI: <https://doi.org/10.1037/0021-843x.102.1.82>
22. Ryan R., Deci E. 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. DOI: <https://psycnet.apa.org/doi/10.1037/0003-066X.55.1.68>

References

1. Babanskiy Yu.K. 1982. Problemy povysheniya effektivnosti pedagogicheskikh issledovaniy [Problems of improving the effectiveness of pedagogical research]. M., Publ. Pedagogika, 192 p.
2. Babanskiy Yu.K. 1989. Izbrannyye pedagogicheskie trudy [Selected pedagogical works]. Ed. G.N. Filonova. M., Publ. Pedagogika, 560 p.
3. Gal'perin P.Ya. 2007. Leksii po psikhologii [Lectures on psychology]. M., Publ. AST, 400 p.
4. Dakhin A.N. 2002. Pedagogicheskoe modelirovanie: sushchnost', effektivnost' i ... neopredelennost' [Pedagogical modeling: the essence, effectiveness and ... uncertainty]. *Standarty i monitoring v obrazovanii*, 4: 22-26.
5. Elfimova N.V. 1985. Puti issledovaniya motivatsii v kognitivnoy psikhologii: sravnitel'nyy analiz [Ways to study motivation in cognitive psychology: a comparative analysis]. *Voprosy Psichologii*, 5:162-168.
6. Kraevskiy V.V. 1973. Mesto i funktsii eksperimenta v pedagogicheskom issledovanii [Place and functions of the experiment in pedagogical research]. In: *Voprosy metodov pedagogicheskikh issledovaniy* [Questions of methods of pedagogical research]. Sbornik nauch. trudov. Ed. M.N. Skatkin. M., Publ. Izd-vo NII obshchey pedagogiki APN SSSR: 185-191.
7. Kushner Yu.Z. 2001. Metodologiya i metody pedagogicheskogo issledovaniya [Methodology and methods of pedagogical research]. Mogilev, Publ. MGU im. A.A. Kuleshova, 66 p.
8. Markova A.K., Matis T.A., Orlov A.B. 1990. Formirovanie motivatsii ucheniya [Formation of teaching motivation]. M., Publ. Prosveshchenie, 191 p.
9. Morozova N.G. 1979. Uchitelyu o poznavatel'nom interese [To the teacher about cognitive interest]. M., Publ. Znanie, 48 p.
10. Rean A.A., Kolominskiy Ya.L. 2008. Sotsial'naya pedagogicheskaya psikhologiya [Social pedagogical psychology]. SPb., Publ. Praym-EVROZNAK, 574 p.
11. Skatkin M.N. 1986. Metodologiya i metodika pedagogicheskikh issledovaniy [Methodology and methodology of pedagogical research]. M., Publ. Pedagogika, 152 p.
12. Talyzina N.F. 1988. Formirovanie poznatel'noy deyatel'nosti mladshikh shkol'nikov [Formation of cognitive activity of younger schoolchildren]. M., Publ. Prosveshchenie, 175 p.
13. Khekkhauzen Kh. 2003. Motivatsiya i deyatel'nost' [Motivation and activity]. SPb., Publ. Piter; M., Publ. Smysl, 860 p.
14. Luzan P.G., Sopivnik I.V., Vigovs'ka S.V. 2012. Osnovi naukovopedagogichnikh doslidzhen' [Osnovi naukovopedagogicheskikh doslidzhen]. K., Publ. NAKKKiM, 368 p. (in Ukrainian).
15. Benware C.A., Deci E.L. 1984. Quality of learning with an active versus passive motivational set. *American Educational Research Journal*, 21(4): 755-765. DOI: <https://doi.org/10.3102%2F00028312021004755>
16. Boggiano A.K., Flink C., Shields A., Seelbach A., Barrett M. 1993. Use of techniques promoting students' self-determination: Effects on students' analytic problem-solving skills. *Motivation and Emotion*, 17(4): 319-336. DOI: <https://doi.org/10.1007/BF00992323>
17. Deci E.L. 1971. Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18(1): 105-115. DOI: <https://doi.org/10.1037/h0030644>
18. Flink C., Boggiano A.K., Barrett M. 1990. Controlling teaching strategies: Undermining children's self-determination and performance: Correction to Flink et al. *Journal of Personality and Social Psychology*, 59(6): 916-924.

19. Grolnick W.S., Ryan R.M. 1987. Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology*. 52(5): 890-898. Doi:10.1037/0022-3514.52.5.890
20. McGraw K.O., McCullers J.C. 1979. Evidence of a detrimental effect of extrinsic incentives on breaking a mental set. *Journal of Experimental Social Psychology*. 15(3): 285-294.
21. Patrick C.J., Bradley M.M., Lang P.J. 1993. Emotion in the criminal psychopath: startle reflex modulation. *Journal of Abnormal Psychology*, 102(1): 82-92. DOI: <https://doi.org/10.1037/0021-843x.102.1.82>
22. Ryan R., Deci E. 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. DOI: <https://psycnet.apa.org/doi/10.1037/0003-066X.55.1.68>

INFORMATION ABOUT THE AUTHORS

- Nadezhda K. Bogashova, the teacher of the Astrakhan Basic Medical College, Astrakhan, Russia
- Natalya V. Smirnova, Candidate of biological Sciences, associate Professor, head of the Department of biotechnology, Zoology and aquaculture, Astrakhan State University, Astrakhan, Russia