ORIGINAL SCIENTIFIC PAPER

Estimation of Different Research Expectations of First-Year Students from the Sport Science Programmes and Their Teachers from Various Stages of Their Proficiency

Stevo Popovic[1], Radenko M. Matic[2], Dusko Bjelica[1] and Nebojsa Maksimovic[2]

[1]University of Montenegro, Faculty for Sport and Physical Education, Niksic, Montenegro, [2]University of Novi Sad, Faculty of Sport and Physical Education, Novi Sad, Serbia

Abstract

The goal of this study was twofold: the first goal was focused on identifying how the expectations of both first-year students from the Sport Science programmes and their teachers differ regarding student research, while the second goal was focused on identifying how teachers' expectations differ based on stages of their proficiency, from novice to expert. A survey of 194 first-year undergraduate students (31% female/69% male) and 38 professors from the University of Novi Sad, Serbia was conducted. Data collection involved two standardized surveys: Student Expectations of the Research Process and Faculty Expectations of Student Research, which were modified to satisfy the requirements of sport science students and teachers. The gulf between student and teacher research expectations was found to be considerable, while the gulf among the different stages of teachers' proficiency was recognized in the area of the responsibility for first-year students learning the skills necessary to succeed at carrying out university-level research. In conclusion, it is noteworthy that a gulf between student and teacher research expectations was found and needed to be further analysed in the following stage of our research, while the gap between the different stages of teachers' proficiency is not considerable.

Keywords: research, expectations, proficiency, Serbia

Introduction

The teaching process at universities is a multifaceted issue of great concern. Not only students and teachers, but parents, the local community, and regional and national government bodies, as well as the non-governmental sector, are equally interested. All of the above subjects have the same goal, which is to improve the academic success of students in the most efficient way for students to acquire the adequate knowledge and skills needed in their future careers. However, not all participants view the process of achieving the intended result in the same way. Most agree that there is a significant impact of mental and cognitive ability on academic achievement and that

a high level of intelligence does not promise a successful final result; it is also well-accepted that learning styles greatly affect academic development. However, there is a significant gap in access among participants from the various social categories mentioned, as well as an intergenerational gap, especially with regard to students who need to develop both theoretical and practical knowledge and competences in parallel, for which it is very important to include the innovation component. Due to its complexity, the process has generated learning strategies that differ significantly in efficiency and practicality, and which are very important to closely monitor and explore, to minimize the gap, especially between students and teachers, and teachers

Correspondence:

S. Popovic
University of Montenegro, Faculty for Sport and Physical Education, Narodne omladine bb, 81400 Niksic, Montenegro
E-Mail: stevop@ucg.ac.me

with different levels of proficiency.

Because the different research expectations of students and their teachers were found to be considerable in the previous literature (Abazaoglu, Yatagan, & Arifoglu, 2016; Begeny, Krouse, Brown, & Mann, 2011; Blazar, 2015; Borghi, Mainardes, & Silva, 2016; Peterson et al., 2011), and students' expectations differ from their experiences (Ayllon, Alsina, & Colomer, 2019; Bardach, Yanagida, Schober, & Luftenegger, 2019) but not substantially, and teachers likely have very different research expectations of first-year and senior students (Brinkworth, McCann, Matthews, & Nordstrom, 2009; Croninger, Rice, Rathbun, & Nishio, 2007; Jacobs & Harvey, 2010; Phillips, 2010; Timmermans, de Boer, & van der Werf, 2016), the first goal of this study was focused on identifying how first-year students' from the sport science programmes at the Faculty of Sport and Physical Education at the University of Novi Sad and teachers' expectations of student research differ. The relationship between their expectations has not been fully investigated taking into consideration all the relevant dimensions (Hidalgo-Cabrillana, & Lopez-Mayan, 2018), while some specific characteristics might be found in the area of sport science, due to its unique teaching and research processes (M. Spittle, & S. Spittle, 2016; Sutliff, Patterson, & Brown, 1999; Trouilloud, Sarrazin, Bressoux, & Bois, 2006; Zhang, Solmon, & Gu, 2012).

In contrast, the second goal of the present study focuses on identifying how teachers' expectations differ based on stages of their proficiency, from novice, advanced beginner, competent, proficient to expert; this goal was pursued primarily because there are few studies focused on this issue (Benner, 1984; Grochow, 2008; Tian, Wei, & Li, 2019) and because the stages of proficiency might influence the teachers' expectations, mostly for the reason that the teachers who prefer the old fashion teaching approach (probably older and "more experienced" teachers) are less focused on students' research expectations and their needs.

Method

First, in this section, it is important to explain why the proposal was undertaken at the Faculty of Sport and Physical Education at the University of Novi Sad. This university unit has very well-rated Sport Science programmes (from 201 to 300 Sport Science Schools and Departments within Shanghai Ranking's Global Ranking 2018) and a wide range of teachers, from novice to very experienced (recognized experts in the field), as well as numerous students that could promise the representative sample. For this reason, a survey of 194 first-year undergraduate students (31% female/69% male) and 38 professors (8.3% novice, 38.9% advanced beginners, 13.9% competents, 13.9% proficient, and 25.0% expert) from University of Novi Sad, Serbia was conducted.

Data collection involved two standardized surveys: Student Expectations of the Research Process (Raven, 2012) and Faculty Expectations of Student Research (Raven, 2012), which were modified by my host and me to satisfy sport science students and teachers requirements. Both surveys were standardized in the previous investigations, while this study has used the variations that might be recognized as specific to the area of Sport Science. The first is the student survey, and it is administered only to first-year classes. It is designed to explore data on students' research experiences and their expectations regarding adequate research. This survey is selected for two reasons: 1) the first-year classes contain recent high school graduates, making it possible to learn more about student research expectations when beginning university: 2) teachers must identify a specific group of students to base their responses on when completing the faculty survey. Hence, the questionnaire contains especially specific questions about research experiences and sources they had used. Additionally, the questions are related to general activities that could influence research behaviours, such as the use of technology and the time spent reading, which are essential elements of the whole process. In contrast, the second survey is the faculty survey, and it was constructed to complement and compare with data gathered from the student survey.

Descriptive statistics (frequencies) were used to identify how first-year students' from the sport science programmes at the Faculty of Sport and Physical Education at the University of Novi Sad and teachers' expectations of student research differ, and to identify how teachers' expectations differ based on stages of their proficiency.

Results and Discussion

From the results perspective of this study, it is necessary to highlight that the gender balance was not proportional among the students (31% female/69% male), and this might be a limiting factor in this research (Figure 1). However, sport science programmes are much more popular among male students in Serbia. Hopefully, this fact would launch promotional activities in the direction of attracting more female students to this field.
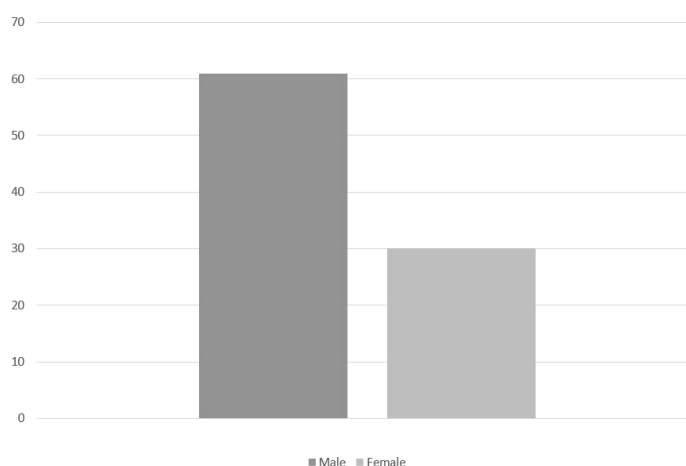

FIGURE 1. Gender balance among the students

Interestingly, 4.6% of students do not have a mobile phone at all, while 28.4% of students do not have a laptop; therefore, a significant percentage of them cannot use online resources in the research process. However, the majority of the students feel very prepared (47.4%) or somewhat prepared (25.8%) to do university-level research and rated their academic research skills as excellent (23.2%) and very good (51.5%); in the opinion of the authors of the present paper, these figures are quite high, and it must be concluded the students are quite self-confident. Nevertheless, the gulf between student and teacher research expectations was found to be considerable (Figure 2), mostly because the majority of the teachers believe students are not prepared at all (22.2%), or they are not very prepared (63.9%) to do university-level research; they rated the first-year students' academic research skills as average (47.2%), not very good (36.1%), or terrible (11.1%). These results correspond to the results from previous studies (Raven, 2012), and confirm that western and eastern European populations have the same gulf between student and teacher research expectations.
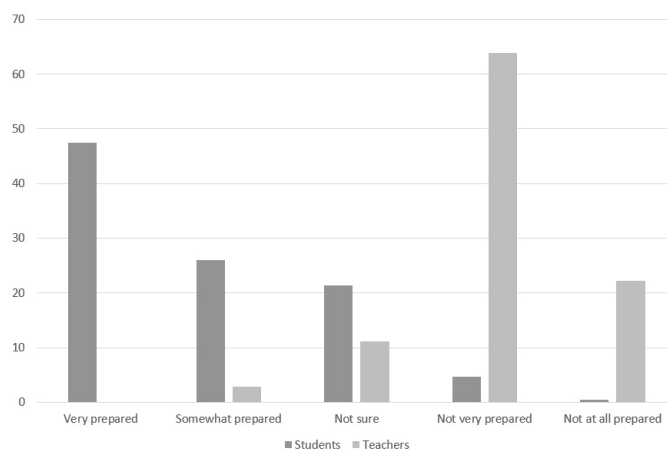

FIGURE 2. Students' preparedness to do university-level research

When we asked the students: "Who do you think is responsible for providing the skills necessary to succeed in carrying out university-level research?", over half of the students (53.1%) selected the teachers, while 38.1% of them recognized themselves to be the most responsible. In contrast, the teachers expected that they are more responsible (69.4%), but a significant number of teachers (38.1%) believe the students are the most responsible in this process (Figure 3). Although teachers have a somewhat traditional approach, it is good to know that Serbian students have more self-confidence in their abilities and the opportunities offered by contemporary education and ICT. This part of our study does not correspond to previous studies (Raven, 2012), and it indicates that there are significant differences in how teachers view things in Serbia and, for example, Canada, where teachers have much more confidence in the independent work of students, which is highly commendable.
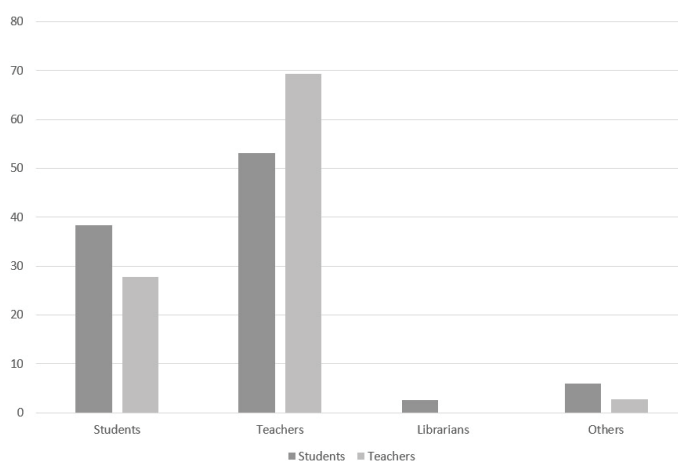

FIGURE 3. Responsibility for students learning how to do research?

Furthermore, it is also noteworthy that 43.3% of students indicated that they spend over 20 hours a week reading books, magazines, journals and/or newspapers for school, work and/or pleasure (reading could be in print or online, but should not include general web browsing, e-mail, or gaming). In contrast, just 18% of student spent more than 20 hours per week online (e.g., general web browsing, Facebook, e-mail, gaming, etc.), which is a fascinating finding as this social group is much more focused on reading in a traditional way, in comparison to online reading and, in the current technology-saturated society, we could isolate the factor that influenced sports science students to behave this

way. Also, that results showing that the traditional way of reading is a more frequent option then online reading at the beginning of the study is based on the fact that new students see books as a basic and the most valuable source of scientific information. Later, when they are at a higher level of study, they have more information about reliable scientific online resources from different sources (teachers, older colleagues, social networks, web sites of the university or faculty, etc.). Likewise, they often need more time to accept and understand the significance of online versions of scientific journals, magazines, and similar sources. Also, it should be kept in mind that academics do not have adequate habits and behaviours for buying the online version of scientific literature and that type of market in Serbia not sufficiently developed.

A gulf between student and teachers research expectations was also found with regard to the amount time required for the research component when they are assigned to prepare a 10-page paper, as well as recognizing the per-

centage of the research material that students expect to find using the Google search engine. Specifically, over half of the teachers believe the students will take the least amount of time in working on the research component when they are assigned to prepare a 10-page paper, while the students expect to work on it at least two hours more than the teachers do. Furthermore, the students give preference to the material they find on Google to a much greater percentage than expected by the teachers.

A gap between student and teachers research expectations was also recognized in the areas as rating students' overall internet searching skills (Figure 4). Over half of the teachers rated this student skill as average, while most of the students rated it as excellent (34%) and good (53.1%). Taking into account all of the preceding, it is clear that the expectations of students and teachers vary and that descriptive results are not sufficient for more serious conclusions, so more advanced analysis is necessary.
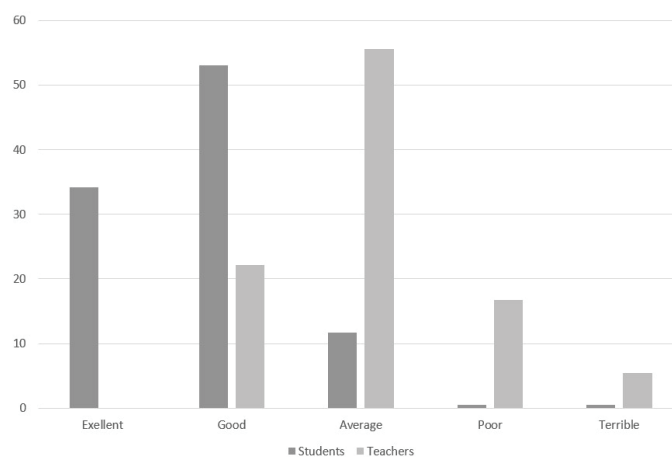

FIGURE 4. Rating of students' general Internet searching skills

In contrast, the second goal was focused on identifying how teachers' expectations differ based on stages of their proficiency, from novice, advanced beginner, competent, proficient, to expert. Regarding the preparedness of first-year students to do university-level research, we did not recognize significantly varied expectations among the different stages of teachers' proficiency, just small differences, and most of them agree the students are not very prepared or not prepared at all. They also agree regarding the following questions: "What percentage of first-year students do you think know what a research database is?", "What percentage of first-year students do you think know what citation and plagiarism are?", and "How would you rate first-year students' academic research skills?"; they did not have very positive expectations. The gap among the different stages of teachers' proficiency is recognized in the area of responsibility for first-year students learning the skills necessary to succeed at carrying out university-level research.

Interestingly, most experts gave priority to the students, while others (novice, advanced beginner, competent, and proficient) give priority to the teachers. Further, while most of the questions did not indicate any differences, it is very important to highlight that novices did not expect first-year students to go to their teachers if they need help with their assignments and recognized that only colleagues and family

would be contacted. In contrast, members of all other stages of the teachers' proficiency gave priority to professors, while the competent gave priority to the colleagues.

Conclusion

In conclusion, it is interesting to highlight that a gap between student and teacher research expectations was found and needs to be further analysed in the following stage of our research, while the gap between the different stages of teachers' proficiency is not considerable. Therefore, further research activities need to be focused on investigating how to bridge the estimated gaps in the areas in which different expectations were recognized and providing some instruction and support services. Recently, the student's association of the Faculty of Sport and Physical Education in Novi Sad launched a new scientific study group of students with intentions for decreasing the gap between students and teacher's views on research expectations. This section started at the beginning of 2020 with the main aim to bring the cutting edge to all interested students (all years of studies) who have the ambition to pursue science in the fields of sports, physical education, and sports medicine. Therefore, this research can be a good starting point for future research and evaluation of the effects of this and similar next steps, which can contribute to reducing the established gap.

References

Abazaoglu, I., Yatagan, M., & Arifoglu, A. (2016). Relationship between Higher Education Area of the Teachers and Academic Achievement of Students. *Journal of Measurement and Evaluation in Education and Psychology-Epod*, 7(1), 109-132. doi:10.21031/epod.90787

Ayllon, S., Alsina, A., & Colomer, J. (2019). Teachers' involvement and students' self-efficacy: Keys to achievement in higher education. *PLoS One, 14*(5). doi:10.1371/journal.pone.0216865

Bardach, L., Yanagida, T., Schober, B., & Luftenegger, M. (2019). Students' and teachers' perceptions of goal structures - Will they ever converge? Exploring changes in student-teacher agreement and reciprocal relations to self-concept and achievement. *Contemporary Educational Psychology, 59*. doi:10.1016/j.cedpsych.2019.101799

Begeny, J. C., Krouse, H. E., Brown, K. G., & Mann, C. M. (2011). Teacher Judgments of Students' Reading Abilities across a Continuum of Rating Methods and Achievement Measures. *School Psychology Review, 40*(1), 23-38.

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Menlo Park: Addison-Wesley, 13-34.

Blazar, D. (2015). Grade Assignments and the Teacher Pipeline: A Low-Cost Lever to Improve Student Achievement? *Educational Researcher, 44*(4), 213-227. doi:10.3102/0013189x15580944

Brinkworth, R., McCann, B., Matthews, C., & Nordstrom, K. (2009). First year expectations and experiences: student and teacher perspectives. *Higher Education*, *58*(2), 157-173. doi:10.1007/s10734-008-9188-3

Borghi, S., Mainardes, E., & Silva, E. (2016). Expectations of higher education students: a comparison between the perception of student and teachers. *Tertiary Education and Management, 22*(2), 171-188. doi:10.1080/13583883.2016.1188326

Croninger, R.G., Rice, J.K., Rathbun, A., & Nishio, M. (2007). Teacher qualifications and early learning: Effects of certification, degree, and experience on first-grade student achievement. *Economics of Education Review*, 26(3), 312-324. doi:10.1016/j.econedurev.2005.05.008

Grochow, D. (2008). From novice to expert: Transitioning graduate nurses. *Nursing Management*, *39*(3), 10-12. doi: 10.1097/01.NUMA.0000313089.04519.f4

Hidalgo-Cabrillana, A., & Lopez-Mayan, C. (2018). Teaching styles and achievement: Student and teacher perspectives. *Economics of Education Review*, *67*, 184-206. doi:10.1016/j.econedurev.2018.10.009

Jacobs, N., & Harvey, D. (2010). The extent to which teacher attitudes and expectations predict academic achievement of final year students. *Educational Studies*, *36*(2), 195-206. doi: 10.1080/03055690903162374

Phillips, K.J.R. (2010). What Does "Highly Qualified" Mean for Student Achievement? Evaluating the Relationships between Teacher Quality Indicators and At-Risk Students' Mathematics and Reading Achievement Gains in First Grade. *Elementary School Journal*, *110*(4), 464-493. doi:10.1086/651192

Peterson, E.R., Rubie-Davies, C.M., Elley-Brown, M.J., Widdowson, D.A., Dixon, R.S., & Irving, E.S. (2011). Who Is to Blame? Students, Teachers and Parents Views on Who Is Responsible for Student Achievement. *Research in Education*, *86*(1), 1-12.

Raven, M. (2012). Bridging the Gap: Understanding the Differing Research Expectations of First-Year Students and Professor. *Evidence Based Library and Information Practice*, *7*(3). doi: 10.18438/B8WG79

Spittle, M., & Spittle, S. (2016). Content of curriculum in physical education teacher education: expectations of undergraduate physical education students. *Asia-Pacific Journal of Teacher Education*, *44*(3), 257-273. doi:10.1080/1359866x.2015.1080813

Sutliff, M., Patterson, D., & Brown, A. (1999). Teachers' perceptions of high and low student achievement in physical education and health education. *Research Quarterly for Exercise and Sport*, *70*(1), A102-A102.

Tian, Z.L., Wei, Y., & Li, F. (2019). Who are better teachers? The effects of tenure-track and part-time faculty on student achievement. *China Economic Review*, *53*, 140-151. doi:10.1016/j.chieco.2018.08.014

Timmermans, A.C., de Boer, H., & van der Werf, M.P.C. (2016). An investigation of the relationship between teachers' expectations and teachers' perceptions of student attributes. *Social Psychology of Education*, *19*(2), 217-240. doi:10.1007/s11218-015-9326-6

Trouilloud, D., Sarrazin, P., Bressoux, P., & Bois, J. (2006). Relation between teachers' early expectations and students' later perceived competence in physical education classes: Autonomy-supportive climate as a moderator. *Journal of Educational Psychology*, *98*(1), 75-86. doi:10.1037/0022-0663.98.1.75

Zhang, T., Solmon, M.A., & Gu, X.L. (2012). The Role of Teachers' Support in Predicting Students' Motivation and Achievement Outcomes in Physical Education. *Journal of Teaching in Physical Education*, *31*(4), 329-343. doi:10.1123/jtpe.31.4.329