

## The Impact of Cultural Environment and Extra-Curricular Activities towards Students' Education

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**Abstract:** *The influence of extracurricular activities on student engagement in the educational realm continues to interest scholars in an abundance of respected institutions. To achieve the holistic development of a student's character, educational and extracurricular activities must be provided with equal accessibility. In this study, we aim to address the questions at hand by surveying the engagement of students in sociocultural activities through the lens of a Jesuit education. We compare students' engagement in extracurricular activities in classical Jesuit institution in United States with the classical European medical institution in Russia. Different cultural and age aspect may influence*

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### 1. INTRODUCTION

Founded by St. Ignatius of Loyola, the postulates of Jesuit education continue to influence the foundational values of nearly 380 secondary schools and 190 colleges and universities across the world. Despite the inevitable differences between cultures and languages, the heightened focus of educating the whole person, or *curapersonalis*, adopted from Ignatian Pedagogy is a principle center of attention within Jesuit institutions (Chick, 2012). Ignatian education and teaching strives to empower the mind, body, and spirit of students, eager to become conscious and active members of their communities. This core philosophy requires educators to genuinely understand the background of their students and its effects on student learning based on the five paradigms of Ignatian Pedagogy: Context, Experience, Reflection, Action, and Evaluation (Chick, 2012).

Context greatly encompasses the need for educators to genuinely understand and consider the various backgrounds and communities each student is involved with to further develop the student-teacher relationship (Korth, 2006). Educators must be able to comprehend the environments of the learner to accommodate to their educational needs. Genuine attention and care for student experience reflects Jesuit Education ideals. By considering these exterior factors, educators can facilitate their classes with more ease and less stress (Resnick, 1987).

In an effort to decrease the amount of tension students experience from classwork alone, several extracurricular activities sponsored by the Jesuit institution, such as sports or fine arts, are made available across campus (Nicolas, 2010). Because such programs exist, educators should be aware of the activities their students are participating in and determine whether these activities decrease stress levels and support academic success (Foubert & Urbanski 2006).

The Experience component of the Ignatian paradigm prompts teachers to seek the best conditions to engage a student's *curapersonalis* within the classroom by using values and emotion to bring another perspective to the newly acquired material. In relation, the element of reflection promotes meditation and deep understanding of class material, which, in return, facilitates long-term knowledge retention and deeper understanding of the material (Chick, 2012). This study primarily focuses on the three aforementioned paradigms of Ignatian pedagogy (IP) to further investigate the effect of extra-curricular activities on the academic progress of students.

The use of modern devices and software systems such as online surveys provides a direct way educators can connect with their students instantly. By merging modern data collection methods with the central dogma of the IP

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Paradigms, students are able to freely express their concerns with the professors to further improve education standards. The group of L.I. Paina from Orenburg State Medical University, Russia conducts an extensive research of the effect of socio-cultural environment on learning effectiveness and professional development of students (Nevolina, Pine, Belononovskaya, & Paina 2017; Paina & Nevolina 2015; Paina 2015; Belanovskaya, Nevolina, Paina, Michailévitch & Pine 2017). A survey used in this study was constructed to gain a better understanding of the impact of cultural environments and extracurricular activities on the educational process. The collected data was analyzed within the individual institutions of Loyola University Chicago and Orenburg State Medical University and compared cross-culturally.

## **2. MOTIVATION**

This project targets undergraduate students in STEM (Science, Technology, Engineering, and Mathematics) disciplines and medical students. Students in these fields historically experience more tension and anxiety due to the competitive nature of the challenging courses to simply meet general graduate school admittance and expectations.

Although many topics within STEM may be technical and time-consuming, a student's personal experiences and the environment they associate themselves with outside of the classroom may aid in the understanding of complex scholastic subjects. Due to the complexity of STEM subjects, students should be encouraged to further discuss the material using analogies from their own experiences (Belononovskaya, Nevolina, Paina & Pine 2017; Paina & Nevolina 2015; Paina, 2015; Rose, 1985). Educators need to develop the circumstances where students are able to independently recall, assemble, and reflect on the material at hand (Paina L.I., & Miroshnichenko I.V., 2012). By implementing the philosophies found within the elements of Experience, Reflection, and Reflection in IP paradigms, educators may analyze our data and hypothesize the best way to engage their students from all backgrounds and apply a personalized method of pedagogy into action while following the latter paradigms.

### **2.1 Methods, Materials and Procedures**

Current work is based on an online survey that contains ten questions regarding student opinion over their academic progress and student engagement in school related and non-related activities. Each question was thought provoking yet brief enough to insure that students voluntarily and enthusiastically participated in the 1-2 minute study. Students who opted to participate in the survey answered each question anonymously and the data was recorded using a secure online database.

This questionnaire was constructed in Russian, transcribed into English, and subsequently distributed between two groups of participants. One group is freshmen to senior science major students at Loyola University Chicago (United States) (LUC) - a private Jesuit University; and a second group is students of Orenburg State Medical University (OSMU), Russia. The age of the participants varied between 18 and 21 years old. There were a total of 309 responses an almost equal numbers of participants in the two groups.

## **3. RESULTS AND DISCUSSION**

Before a complete analysis of the data recorded from each institution was performed, there was a difference between the students' populations from each university to consider. The majority of LUC undergraduate student science majors follow a strict, pre-health track that includes classes not directly related to medicine while the students of OSMU do not follow the same path. Students who attend OSMU are accepted into the direct track into medical school based on high school diploma and standardized tests similar to the SAT. Although students at OSMU skip an additional application and transition stage the initial acceptance requirements to OSMU are extremely rigid and highly competitive. The students who self identified their academic performance as *above average* comprise 63.83% at LUC and 30.36% at OSMU.

The analysis of the responses of the LUC and OSMU gives interesting results. The question that asked if the students consider having enough free time gave almost identical statistics for both institutions: 35.23% of the LUC students and 35.29% of the OSMU students agree that they have enough free time.

Only 21.24% of the LUC students participate in any sport related activities, compared to the 54.76% of the OSMU, although if the students had enough free time 60.28% LUC and 39.88% OSMU students would participate in sport related activities in their colleges.

Students involved in any fine arts activities comprise 27.66% at LUC and 40.48% at OSMU; additionally 65.96% of LUC and 58.08% of OSMU expressed their interest in fine arts activities in their colleges would they have enough free time.

One of the interesting results of this study is that Loyola (LUC) students have greater desire to attend university events: 82.98% LUC compared to 50.60% at OSMU. These percentages may indicate the readiness of Loyola students to support their college sport teams, music bands, and theatre programs. It may be related to the recent national success of Loyola basketball and volleyball teams (Gleeson, 2018). During the 2018 spring semester, the Loyola men's basketball team competed in the National College Athletic Association (NCAA) Division I basketball tournament after 33 years of ineligibility and became the fourth No. 11 seed to reach the NCAA Final Four which made national headlines for weeks (Lauletta, 2018). The Loyola Men's Volleyball athletic program has proven to be one of the most successful college teams for over two consecutive seasons. In 2013, Loyola won the first NCAA men's volleyball tournament in history; the following year, they defied odds again by bringing another title home (Bonagura, 2015). This recent success is also responsible for the increase in interest in Loyola's athletic programs and school spirit. The more success a university obtains in athletics or any university program, the more likely students are to feel positive school spirit in those programs.

Meanwhile, the OSMU students tend to take an active part by participating in smaller-set extra-curricular university activities. For example, OSMU has an intermural student theater "Goritsvet" that has been a well-recognized college theater, known throughout Russia for the past 50 years. The professors that teach at OSMU are also greatly involved in a flourishing, close-knit fine arts community. For example Prof. Y. Tsinberg, MD, PhD, who is well known specialist in pathophysiology teaches this subject to the medical students is also a director of the "Goritsvet" student theater.

#### **4. CONCLUSIONS**

The sociocultural environment of an institution determines the way students are involved in campus life and impacts students' educational development as *curapersonalis*. While the students of OSMU consistently prefer to take an active part in amateur university activities Loyola students prefer to attend professional college pre-organized activities such as team sport games orchestra and band concerts, LUC theater performances.

Current data can be used gather additional information. For example, the data collected may provide an insight as to whether students involved in sports and fine arts are more content with their grade-point average (GPA) than students who do not participate in these activities. These differences in the data may also be compared with students attending OSMU. Additionally, the survey incorporated questions that asked the students to reflect on their extracurricular experiences. Knowing whether students enjoy the extracurricular opportunities provided, or feel a lack thereof, is of enormous benefit for educators.

Results in the data may allow university administrators and instructors to decide whether enough extracurricular activities are available or if such activities need modification (Braxton, 2000). Comparing habits of successful medical students at Orenburg State Medical University to a successful STEM majors at Loyola University Chicago may indicate to specific influences from extracurricular activities that have a positive effect on students' educational development. Finally, after implementing the conclusions drawn from the data, administrators and instructors may evaluate how new changes in extracurricular opportunities affects students. This task may be accomplished by conducting another university-wide survey leading to the development of an innovative and caring Jesuit institutional environment.

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REFERENCES

- Belanovskaya I.D., Nevolina V.V., Paina L.I. (Pine L.), Michailevitch M. & Pine P., (2017) Pedagogical technologies foresight platform: "Strategy of professional self-development of the students in medical education". *Primo Aspectu Volgograd State Technical University*, p.50, 3(31).
- Bonagura, K. (2015, May 10). Loyola-Chicago takes men's volleyball title. Retrieved from [http://www.espn.com/college-sports/story/\\_/id/12858190/loyola-chicago-wins-ncaa-men-volleyball-championship](http://www.espn.com/college-sports/story/_/id/12858190/loyola-chicago-wins-ncaa-men-volleyball-championship)
- Braxton, J. M. (Ed.). (2000). Reworking the student departure puzzle. *Vanderbilt University Press*.
- Conover, D. (2016, July 30). *Finding Loyola's Place in NCAA Men's Volleyball History*. Retrieved from <http://loyolaphoenix.com/2016/02/finding-loyolas-place-in-ncaa-mens-volleyball-history/>
- Foubert, J. D., & Urbanski, L. A. (2006). Effects of Involvement in Clubs and Organizations on the Psychosocial Development of First-Year and Senior College Students. *NASPA Journal*, 43(1). doi:10.2202/0027-6014.1576
- Gellin, A. (2003). The effect of undergraduate student involvement on critical thinking: A meta-analysis of the literature 1991–2000. *Journal of College Student Development*, 44, 746–762.
- Gleeson, S. (2018, March 27). Amazing stats and facts from Loyola's historic NCAA tournament run to the Final Four. Retrieved from <http://www.usatoday.com/story/sports/ncaab/2018/03/24/amazing-stats-and-facts-loyolas-historic-ncaa-tournament-run-final-four/456563002/>.
- Korth, S. J. (2008). *Precis of Ignatian pedagogy: A practical approach*. In G. W. Traub (Ed.), *A Jesuit education reader*. Chicago, IL: Loyola Press.
- Lauletta, T. (2018, March 31). Loyola is just the latest Cinderella to reach the Final Four - here is how the others fared. Retrieved from <https://www.businessinsider.com/cinderella-final-four-march-madness-2018-3>
- Mohamad, M. H. (2018). The Relationship Between Mental Health, Stress And Academic Performance Among College Student. doi:10.15405/epsbs.2018.07.02.60
- Nevolina V.V, Pine. P, Belononovskaya I.D. &Paina L.I. (2017)Strategies of professional self-development in medical education. *Discussions*, 8, 82,
- Nicolas, A. (2010), April 23. Depth, Universality, and Learned Ministry: Challenges to Jesuit higher Education today. *Remarks for "Networking Jesuit Higher Education: Shaping the Future for a Humane, Just, Sustainable Globe" Mexico City*. p.1
- Paina L.I., &Miroshnichenko I.V., (2012) The competence approach in learning and educational process in medical schools and high education. *Medical Journal of Eastern Kazakhstan*, 2(34), p.97-99
- Paina L.I., (2015) The development of communicative tolerance among students in the sociocultural environment of a medical school. *Modern education system: theory and practice. M. Book 1-Stavropol: Logos, Ch. 3. C 50-62. ISBN 978-5-905519 24-6*
- Paina L.I., Nevolina V.V. (2015) Specificity of professional motivation of students in the socio-cultural environment of the medical university. *Discussion*1 (53), p.132 ; ISSN 2077-7639
- Resnick, L. B. (1987). The 1987 Presidential Address: Learning in School and out. *Educational Researcher*, 16(9), 13. doi:10.2307/1175725
- Robinson, J. M. (2010). Exploring Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind. *Teaching Theology & Religion*, 13(3), 286-287. doi:10.1111/j.1467-9647.2010.00631.x
- Rose, C. (1985). Empowering the spectrum of your mind. *Flushing, NY: Spectrum Educational Services, Inc.*
- Tinto, V. (1987). Leaving college: Rethinking the causes and cures of student attrition. *University of Chicago Press, 5801 S. Ellis Avenue, Chicago, IL 60637.*

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