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## Motivation, Interest, and Satisfaction as Driving Forces for the Students on Ski Trainings

Sergey V. Khudik, Valentina S. Bliznevskaya, Anna A. Khudik, Aleksandr Yu. Bliznevskiy\*, Andrey P. Tarasenko, Olga G. Volkova, Yulia V. Tarasenko

Siberian Federal University Krasnoyarsk, Russian Federation

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**Abstract.** The study addresses the issue of how to attract the students of non-physical specialties to ski training – a physical, health and socially significant type of activity; there is also an explanation of how such arguments in favor of such activities, increasing interest and motivation. The work contains the survey results, obtained from the second-year students (n=150): the first stage includes motivational factors in ski training – increasing a cold-resistance capacity of body (4.78±0.27), free move following the rules of safe social distance  $(4.65 \pm 0.58)$ , opportunity spend time in the nature, to get aesthetic pleasure (4.44 $\pm$  0.90), opportunity to increase the aerobic capacity of the cardiovascular system through skiing  $(3.60 \pm 1.23)$ , when more than 90 % of the muscles are involved. Further, the main trends in improving the features and technique of ski training, which turned to be the most interesting for students, are identified: skiing at a steady pace by classical style (4.24  $\pm$ 1.23) accompanying with the desire to eliminate the technical errors – double-support sliding (143 people = 95.3 %); lack of slide (141 people = 94.0 %); poor sticks work (138 people = 92.0 %). The respondents have shown a real interest in mastering and improving the up-and-down move with different degrees (4.16  $\pm$  0.45). The result of the study lies in defining a simple and easy-to-learn methods for improving the technique of skiing, focusing on the health improvement and dealing with the ski slopes.

**Keywords:** "Physical Culture and Sport" academic discipline, ski training, satisfaction, motivation, interest.

Research area: theory and methodology of physical education, sport training, recreational and adapted physical education.

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<sup>\*</sup> Corresponding author E-mail address: abliznevsky@sfu-kras.ru

# Мотивация, заинтересованность, удовлетворенность – движущие силы на занятиях студентов по лыжной подготовке

С.В. Худик, В.С. Близневская, А.А. Худик, А.Ю. Близневский, А.П. Тарасенко, О.Г. Волкова, Ю.В. Тарасенко

Сибирский федеральный университет Российская Федерация, Красноярск

Аннотация. Рассмотрена проблема привлечения студентов нефизкультурных специальностей вузов к лыжной подготовке как физкультурно-оздоровительному и социально значимому виду физической нагрузки. Обоснована необходимость поиска аргументов в пользу таких занятий, повышения интереса и усиления мотивации. Приведены результаты социологического исследования среди студентов второго курса (n=150), где на первом этапе были определены факторы мотивации к лыжной подготовке: усиление степени закаливания организма и устойчивость к простудным заболеваниям (4,78±0,27), возможность свободного перемещения с необходимостью соблюдения санитарных норм (4,65±0,58), возможность побывать на природе в лесном массиве, получить эстетическое удовольствие от ее созерцания (4,44±0,90), возможность без ограничения пространства повышать аэробные возможности сердечно-сосудистой системы организма посредством ходьбы на лыжах  $(3,60\pm1,23)$ , когда в работу вовлекается более 90 % мышц организма. Далее были определены актуальные направления совершенствования специфических качеств и технических элементов лыжной подготовки, наиболее значимые и интересные для студентов: ходьба на лыжах в равномерном темпе традиционным классическим стилем (4,24±1,23) с желанием устранить грубые ошибки в технике лыжного хода – двухопорное скольжение, отмеченное у 143 чел. – 95,3 %; практически отсутствие проката на скользящей лыже у 141 чел. – 94,0 %; очень слабое отталкивание палками у 138 чел. – 92,0 %. Очевидную заинтересованность студенты проявили в освоении и совершенствовании техники передвижения на спусках и подъемах разной крутизны (4,16±0,45). Итогом исследования стало определение простых и доступных в освоении методов совершенствования техники ходьбы на лыжах оздоровительной направленности, преодоление подъемов и спусков на лыжных трассах.

**Ключевые слова:** учебная дисциплина «Физическая культура и спорт», лыжная подготовка, удовлетворенность, мотивация, заинтересованность.

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#### Introduction

One should not associate the value of government actions to improve the nation's health through physical trainings should merely with the orders on the physical development of students during "Physical Culture and Sports" classes. Apart from eliminating the lack of physical activities, one should consider students' intentions and requests for certain exercises, which can (or should) be nurtured in the course of higher education. In this sense, it is important to direct the educational component towards motivation by engaging in various sport events – both in organization and performance (Bondin, Stepanova, Belavina, 2020). To reach this goal, the faculty need to introduce the key vectors, advantages and benefits of sport practicing for health promotion and building new motor skills that are necessary in future profession (Lubysheva, 2015). The recent cases of restrictions on indoor physical exercise caused by the pandemic provide new opportunities for these activities to be carried out in open spaces (Andreenko, Lukyanova, et.al. 2019). One of the most common types of winter recreational physical activity is skiing (Khudik, Bliznevskaya, et.al., 2020).

Obviously, the history of skiing, as a sport, dates to the middle of the 15th century – partly in the regions of modern Russia and in the Scandinavian countries. Russian, Swedish, Norwegian ski military detachments were actively developed, in most cases - to serve the military purposes. These ski soldiers were properly trained through physical loading with full military equipment, special attention was paid to handling very steep snowy slopes. Yet, for domestic purposes, in the absence of roads in the regions of Siberia and the Far East, snowshoes skiing sometimes became the only means of transportation in winter, since they significantly extend the bearing surface on the snow cover and facilitate the movement. The ski design could be very different in length, width, and toes, and the sliding surface could not only be made of wood, but also lined with animal skins, a pile back, which excluded the slipping when climbing uphill (Bergman, 1965). In general, such skis resemble the modern wide skis for hunting.

Even then, there were also public skiing competitions organized, in which everyone could take part, along with the military personnel; in Rus' these events were held on holidays and in winter festivals, with crosscountry skiing and down-runs of different kind. Most significantly the use of skis turned to sports and leisure time activity in the late 19th century, when skiing competitions came in the snowiest countries of the world (Ramenskaya, Batalov, 2015). Notably, Norway is generally recognized as the birthland of skiing - there was the first skiing sport club, ski sports community, and the first official cross-country skiing competitions – Holmenkollen Ski Festival, held annually even now – were first held near Oslo in 1883 (Butin, 2000).

With entering the information age and emerging of newspapers and other international news sources, the media quickly published any news about the skiing development. The readers took interest in history of skiing, advantages in sport ski equipment, and competitive results. The analysts even speak of the beginning of a "ski fever" caused by dramatically increased popularity of skiing (Agranovsky, 1980). Interestingly, even professional athletes from other sport fields were ready to retrain quickly for the more popular skiing – they moved to the snowy regions for living and training. Up to this time, skiing has been widely known both in elite sports and in mass physical culture.

In this country, the public ski training has been given special attention for many years. In this sense, with implementing the universal military training (rus. – Vseobuch) during the Civil War, ski training was included as a compulsory discipline. In 1918, the sports universities began to train ski coaches. The number of sports organizations, with widely spread skiing, was constantly growing, and when in 1931 the All-Union Sports Complex "Ready for Labor and Defense of the USSR" (rus. - GTO) was implemented, special curriculum and physical education standards with a compulsory ski training course in schools were introduced. The high sport results are always a driving force which activate the physical culture among the population – this is the reason why the skiing competitions were held throughout the whole country (Evstratov, Chukardin, Sergeev, 1989). Even after a short termination at the beginning of the Great Patriotic War, the USSR Skiing Championship in skiing was again held in Sverdlovsk in 1943.

Throughout the post-war decades and till the collapse of the USSR, ski training was obligatory and widely spread at all levels of education, i.e., general, vocational and higher, in most regions. Unfortunately, since then, the universities faced a downsizing of students who choose ski training in "Physical Culture and Sports". This is largely due to the emergence of alternative opportunities for physical exercise in indoor sports facilities. Still, there is a need to engage young people in physical education by the means of ski training, since its benefits are many-sided (Aksenov, 2008; Melikhov, Frolova, 2017; Sergeev, 2015).

In case of regular skiing, apart from improvements remarkable in general performance of students, there is also a boost in the immune system, reached by the cold fresh-air activities, and hardening, which makes the body cold-resistant, enhancing its thermoregulation mechanisms (Matveev, 1991). Another positive aspect of skiing is a landscape therapy, i.e., treatment and strengthening of the body through outdoor exercising. There are many advantages related to general psychological health, freedom of stress and depression, improved nervous system, and even sleep. Skiing classes in the forest area provides an opportunity to dive into the wildlife, to feel clean and healthy environment.

There is no big difficulty in mastering the health-improving technique of skiing, since it fits to our natural way of moving (walking), and the use of ski poles stimulates the muscles of the shoulder girdle, back, and arms. On the contrary, the load on the lower extremities and spine, is reduced as against to ordinary walking, and meantime, more than 90 % of the muscles are involved. Such balanced muscle activity results in more harmonic and strengthened body development, with respect to biological characteristics of each person (Marakhovskaya, Safonova, 2010).

For making the ski training an appropriate type of students' physical activity, the faculty

should be interested in more active motivation and stimulation of students in the course of "Physical Culture and Sports". Therefore, the current study aims identifying the arguments which help to level up students' interest in ski training within this academic discipline and searching for new methodologies to popularize this physical activity.

### Methodology and Discussion

Motivation is the main driving force of systematic learning, since it exactly incentivizes the educational and cognitive activity, which is directly depends on desires and interests (Bondin, Stepanova, Belavina, 2020; Izotov, Soldatova, Filatov, 2018). Therefore, the analysis of the students' attitude to ski training, determines the parameters of motivation, as well as the degree of interest and satisfaction in training sessions during "Physical Culture and Sports". The research covered 150 second-year students of three Schools of Siberian Federal University:

- School of Engineering Physics and Radio Electronics: girls (n=10), boys (n=20);
- Polytechnic School: girls (n=25), boys (n=35);
- School of Space and Information Technologies: girls (n=25), boys (n=35).

In the first year of education, the respondents took up the ski training, and each of them has their own thoughts about its relevance and the level of satisfaction. In this sense, the research examines the students' attitude to the training to outline the factors and reasons that destroy a positive attitude towards skiing. Indeed, the proper attraction of ski classes can be reached through accurate positive arguments, as well as through and up-to-date list of motives given to the students for their subjective evaluation and understanding.

The strongest motivation in doing outdoor physical exercises is developing the body resistance to the colds (4.78±0.27). Such positive effect was achieved due to the students' awareness, obtained from popular science literature, on how the thermoregulation mechanisms can be improved by the outdoor activities. Therefore, most of them recognize

the advantage of exercising not indoors, but outdoors.

The motive of free movement with the possibility of a safe social distance between those involved turned to be little less popular (4.65±0.58). The COVID-19 time showed that the priority is given to the classes with no close contact between the students, which prevents the spread of infections. At the same time, communication at a safe distance is not excluded, no noise inconvenience for others, typical for indoor sports, is created.

The respondents have also emphasized another motive – the opportunity to exercise outdoors, in the nature, to get aesthetic pleasure ( $4.44 \pm 0.90$ ). Most of the ski bases are closely to parks, squares, or in groves where ski-runs are made, which literally, takes the students away from the urban atmosphere.

The motive of increasing aerobic capacity of the cardiovascular system, when more than 90 % of the muscles of the body are involved in the work, also appealed to the respondents  $(3.60 \pm 1.23)$ . Walking, running and skiing are generally recognized as the most common forms of such locomotion behavior.

Less than half of the students assessed the opportunity better preparing for the mass sports and recreational events in skiing ( $2.04 \pm 1.18$ ): participation in the "Ski Track of Russia", an annual all-Russian sporting event, is hardly highly appreciated -22 % of the respondents were not even aware of it.

Thus, summing up this part, there is generally a positive perception of the above arguments as driving motives for students to intensify outdoor activities in general, and skiing among them. Nevertheless, a total positive motivation can be obtained only through meaningful physical activity, which should be of students' interest. In this sense, ski training is no exception – it is important to provoke the motivation-and-value value attitude, regarding the focus on the features of proposed exercise. Therefore, next stage aims determining the level of interest in improving the features and technical elements of ski training, identifying the most significant and interesting of them for further implementation in the class health-improving methodology.

This stage has showed that students enjoy skiing at a steady pace, in classical style (4.24 ± 1.23). Still, most of them make serious technical mistakes in the performance, and, thus, slow up; some errors were formed in ski technique during the physical education classes at school. According to the expert assessments the respondents' skills, the most common technical mistakes in the most used diagonal stride are two-leg sliding, noted in 143 people – 95.3 %; almost no slide – in 141 people (94.0 %); very weak stick push-offs – in 138 people (92.0 %). All this forms a desire to eliminate the most common mistakes to overcome longer distance at each next lesson, that is, to extend the load.

Apparently, the respondents motivated by mastering and improving the movement on up-and-down slopes of different degree (4.16  $\pm$  0.45). The downs bring more positive emotions, even when falling, the students remain being keen on skiing. Even a steady walking by skis is well-perceived, when the classes target general endurance training in medium or flat ground (3.23±1.26). Notably, the main thing is the individual pace and amount of skiing to provide an optimal, but proper effect on the body, while too excessive loads and demands for increasing intensity can be taken negatively (2.04  $\pm$  1.18). This is especially true for the speed-strength capacity, which is to increase the speed and pass ski training tests  $(1.65\pm0.88)$ .

The findings help to articulate the most relevant methods for improving the technique of skiing in the health-improving aspect. Further, their implementation in the course of "Physical Culture and Sport" was confirmed at the final stage of this survey. The attitude towards methodology and practice was positive enough - the students sought to master and improve the technique of down-running in a full, semi- and low crouch (4.59  $\pm$  0.53), uprunning with a "stepping", "side-stepping" and "herringbone" (4.41  $\pm$  0.84); to eliminate the key technical errors, which significantly reduce the speed on the track  $(4.05 \pm 0.92)$ . The results of this three-stage study on determining the motivation, interest and satisfaction of students in ski training during the course of "Physical Culture and Sports" are shown in the Figure.

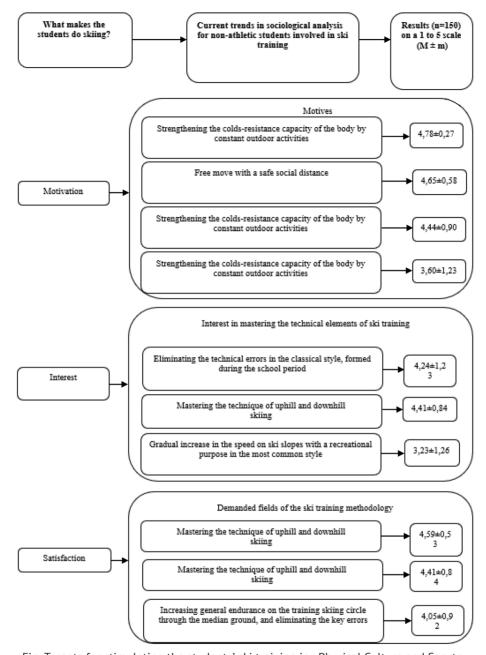


Fig. Targets for stimulating the students' ski training in «Physical Culture and Sports»

These results are not statistically different in terms of gender, that is, all the preferences are similar.

#### Conclusion

The most important task of physical self-improvement among the students is to

raise the emotional background of training sessions, which positively influence the acquisition of methodological and practical material, and therefore, increases the impact of physical activity on the general health of the students. The targets defined in the study for motivating the students for ski training

during "Physical culture and Sports" can be considered as feedback when building motivation and interest. And by limiting the ski training methodology only by in-demand sections on eliminating the technical errors and teaching the up-and-down running will only contribute to the classes.

In this country, the ski training is a historically determined traditional type of popular physical activity, especially known in the areas with vast snow cover. In this time, a good number of ski bases with storage facilities for modern skiing equipment and professionally prepared ski slopes allow to get a real pleasure from skiing. Therefore, a methodically properly organized educational process in "Physical Culture and Sports" will help students to work out a real interest in skiing not only for their studentship, but also for a long-term perspective.

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