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Interest and motivation of Indonesian and Malay students in the implementation of sports injury therapeutic massage

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Abstract: This study was to find out the impact of interest and motivation of Indonesian and Malay students on the implementation of management of minor post-sports injury therapeutic massage. It was a descriptive-qualitative and descriptive quantitative mixed study with survey method. Conducted in 2021 in the Faculty of Sports Science of Yogyakarta State University. Total participants 68 students involved 50 Indonesian students and 18 Malay students. Used Linkertt scale instrument with the modified questionnaire of interest, motivation and implementation, r-count > r-table (0.235) and alpha Cronbach of 0.655. The results of the study showed that: the interest of the students in the management of the injury was very low (2 students or 3%), low (21 students or 31%), high (42 students or 60%), and very high (4 students or 6%); the motivation of the students in the management of the injury was very low (3 students or 4%), low (25 students or 37%), and high (36 students or 53%), and very high (4 students or 6%); impact of the implementation of the Sports injury management by the students was very low (3 students or 4%), low (34 students or 50%), high (23 students or 34%), and very high (8 students or 12%). Concluded that the interest and the motivation was influenced by intrinsic and extrinsic factors that could influence learning result, while the learning result could be found out in the implementation. It was necessary to organize hard skill learning using repetitive method consistent with the stimulus-response theoretical perspective.
Keywords: interest, motivation, minor injury management

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INTRODUCTION

Learning can be considered as good if information transfer process from educators to learners goes well. The performance of the educators has significant impact on the interest, the motivation and the achievement of learners (Tambunan *et al.*, 2021). The capability to receive information is inseparable of the focus of learners (Kuldas *et al.*, 2015). Interest is influenced by the compatibility of teaching materials (Otundo & Garn, 2019). Other supporting component in learning is among others individual motivation. Motivation has positive impact on learning, but it is necessary to pay a good attention to the difference in the capability of learners to receive information (Jurado & García, 2018). Good educators will involve in improving the knowledge and the skill of learners (Husin, 2022). It can be concluded that interest and motivation are required in optimizing good learning process involving educators and learners. However, it is necessary to understand that each learner has different character and capability to receive information and hence effective and efficient strategy is required. Learning methods include problem-based learning, case scenario presentation, portfolio and clinical debate that are particularly designed to stimulate learning motivation (Hee *et al.*, 2019).

The motivation for success in the future represents strong motivation for individuals to continuously learn to achieve goals. The motivation for the success positively influences skill competence and long life learning principle (Ekşi *et al.*, 2020). The components of the motivation as self-confidence, goal, getting job, and the support of surrounding environment have significant impact on learning independence (Lim & Yeo, 2021). It is necessary to stimulate self-confidence in learning

technical skill (Manafe *et al.,* 2016). Self-confidence has significant impact on the learning result of learners (Brataningrum & Saptono, 2017). It is concluded that consistency and independence are required in achieving skill learning goal.

Student centered learning is one of the methods that can be used to improve the independence of learners. The student centered learning puts the emphasis on interest, capability, and learning style of each individual, considers teachers more as learning facilitator for individuals than whole class (Lathika, 2016). Learning process enables learners to be more creative and innovative. Educators create transformative change through critical thinking skill improvement that lead to the change in concepts and the creation of new idea understanding framework (Paul & Quiggin, 2020).

It is expected that creative learners could face challenges and demand of digital era. The digital era is characterized by the emergence of various technologies and artificial intelligence. The artificial intelligence will never be comparable with human creativity (Marrone *et al.,* 2022). The creativity enables human to see opportunities and to create new things that survive technological advancement. One of the things is the improvement of massage competence. In the last 30 years, massage therapy got special attention of researchers. It is corroborated by clinical evidence that the massage therapy is useful in improving health condition, including relieving chronic back pain (Ooi *et al.,* 2018). The massage therapy is one of alternative therapies most widely accepted to help patients with various pathological conditions, including arthritis, anxiety, insomnia, pain management and injury remedy. Massage therapy is one of the safest therapies by health care professionals for health improvement (Liu *et al.,* 2015). It is concluded that before modern medical treatment, massage has been widely practiced to maintain good physical and psychological condition. It is necessary to integrate rapid technological advancement and the massage to scientifically proof that it can be useful for injury massage treatment.

Injury case is an interesting subject that deserves a good attention. Injuries may result in productivity loss (Kellezi *et al.,* 2022). Supervision, understanding improvement and injury prevention should be done because injuries may cause higher cost (Leadbeater *et al.,* 2022). A good understanding of injury plays an important role in preventive and curative efforts (Dipnall *et al.,* 2022). Study results showed that there are only 492 publications of 11,859 publications that deal with effective injury managing method, while concerning minor injury there is difference in effectiveness, recovery period for normal Sports activity or exercise (Klügl *et al.,* 2010). The study that is based on the implementation of the prevention and the management of injury gets less attention. There are only 1% of 12,000 articles published from 1938 to 2010 that deal with of injury prevention (Matic Girard & McKay, 2013). The data show that the problems facing massage practitioners is how to provide evidence-based massage service in building client's trust in digital era. The problems can be solved through educational pathway by improving theoretical and practical understandings of students. However, it requires high learning interest and motivation

METHODS

It was a descriptive qualitative and descriptive quantitative mixed study. It aimed at finding out, gathering information and giving a description of the interest and the motivation in adding massage skill. It used survey method. Data were gathered using questionnaire that should be filled out according to actual situation. Its population included 50 Indonesian students and 18 Malay students. Likert scale was formulated on the basis of the development of variables and further formulated in items. The variables were 1) interest, consisting of enthusiasm and desirability with 6 items; 2) motivation, consisting of benefit, learning, and pride with 9 items; 3) implementation, consisting of knowledge and skill with 15 items. The questionnaire has been validated before used. The results of the validating test of the aspect of the interest of the questionnaire showed that it was valid if r-count > r-table (0.235) at the significance of 5%. The results of the reliability test showed that it was reliable with Alpha Chronbach > 0.6 (0.655). The questionnaire was distributed to respondents using Google Form platform. Raw data were collected using questionnaire distributed to 68 subjects using Google Form. Data reduction has done as selecting process focusing on the simplification, the abstraction and the transformation the raw data resulting from in-field notes. The data focused on the perspective of the students of the factors contained in the items of the instrument of the study. They were formulated into 1) highly agree, 2) agree, 3) disagree, and 4) highly disagree. Data were presented as information

that enabled conclusion drawing and action taking for the purpose of simplifying complex information into simple information easy to understand. The 4 categories were encoded into 1, 2, 3, and 4. The data resulting from each of the items represent raw data. And then, they were consulted with the established categories.

Table 1. Evaluation categories

No.	Normal Ranges	Categories
1.	$\times \geq M + 1.5$ SD	Very high
2.	$M \leq \times < M + 1.5$ SD	High
3.	$M - 1.5$ SD $\leq \times < M$	Low
4.	$M - 1.5$ SD $\geq \times$	Very low

RESULTS AND DISCUSSION

Table 2 showed that in general the interest aspect of the 68 subjects of the study of the Sports injury management was very low (2 students or 3%), low (21 students of 31%), high (41 students or 60%) and very high (4 students or 6%). Table 3 showed that the motivation aspect of the 68 students of the Sports injury management was very low (3 students of 4%), low (25 students of 37%), high (36 students or 53%) and very high (4 students or 6%). Table 4 showed that in general the implementation aspect of the 68 students was very low (3 students or 4%), low (34 students of 50%), high (8 students or 12%), high (23 students or 34%) and very high (8 students or 12%).

Table 2. Description of the interest aspect of the students of the Sports injury management

No.	Categories	Frequencies	Percentages
1.	Very low	2	3 %
2.	Low	21	31 %
3.	High	41	60 %
4.	Very high	4	6 %
5.	Total	68	100.0

Table 3. Description of the motivation aspects of the students of the Sports injury management

No.	Categories	Frequencies	Percentages
1.	Very low	3	4 %
2.	Low	25	37 %
3.	High	36	53 %
4.	Very high	4	6 %
5.	Total	68	100.0

Table 4. Description of the implementation aspect of the students of the Sports injury management

No.	Categories	Frequencies	Percentages
1.	Very low	3	4 %
2.	Low	34	50 %
3.	High	23	34 %
4.	Very high	8	12 %
5.	Total	68	100.0

The novelty of the study was more in-depth examination of the interests and the motivation of the students coming from two countries in the implementation of the Sports injury massage skill. It was interesting to find out if the massage might be accepted in the two countries with different geographical and cultural aspects and also different education systems. The injury massage skill was very useful, especially for athletes at high risk of injury so that the injury massage could be alternative remedy based on scientific evidence. Friction and effleurage massage were better in relieving acute back pain, while back massage-stretching combination was better in relieving chronic waist pain (Utomo & Kushartanti, 2019). It was necessary for anybody to get a good understanding of injury and

injury management, especially athletes at high risk of injury. The athletes at the high risk of injury had bigger potential for early retirement because of the injury. Massage skill teaching closely related to education as an effort to give a good theoretical and practical understanding for certain goal. Soft skills aspect were taught at school, while hard skills were taught while practicing in teaching rectory (Widarto, Pardjono, Noto, 2012). Learning process was influenced by interest and motivation for implementation. If the goal and the objective were not clarified, it was difficult for the learners to understand what they should learn (Redelius *et al.,* 2015). The results of the study by Baihaqi *et al.* (2021) recommended that education of injury risk management was required.

Educators' creativity and strategy played an important role in achieving learning objective that included the aspects of knowledge, attitude and skill. Education could improve knowledge by involving students in learning material selection and learning process (Carman *et al.,* 2021). Appropriate learning method could give students meaningful experience. The learning experience was influenced by learning model that was used (Darling-Hammond *et al.,* 2020). Such methods included telling the process to achieve success. The success story telling could motivate students to achieve academic goals in the subject of science and other subjects (Lin-Siegler *et al.,* 2016). Motivation could be observed in the active role of the students during the period of learning. The supporting factors of the learning process included intrinsic and extrinsic ones. One of the motivating factors was the aspiration of the students. The aspiration of the students could have significant impact on the learning process and the seriousness in learning (Altintas *et al.,* 2020). The ease to grasp a good understanding of learning materials could motivate students in learning process. It had positive impact on individual interest (Z. Wang & Adesope, 2016). It was concluded that the factors of educators, learning model and learning materials could influence the interest and the motivation of learners in learning process considering the characteristics of the learners.

Interest Aspect

Learners had different characteristics and behavior that could be used in predicting educational and occupational success in the future. Study results showed that students with high interest in learning would get top status job in the 11th year, while high salary in the 50th year (Spengler *et al.,* 2018). Learning decision was influenced by learner's perspective and it subsequently influenced affective attitude in practice (Patall *et al.,* 2018). Learning process could have significant impact on individual interest (Rotgans & Schmidt, 2017). Study results showed that direct experience stimulated learners' interest through three phases, which were among others receiving factual information, contemplating, and implementing their knowledge (Skalstad & Munkebye, 2022). Considering learning process that involved learners and educators in more detailed way could enrich the learning materials that have been given (Benore *et al.,* 2017). Interest could be used to find out individual motivation in certain area (Xu *et al.,* 2020). The basic principle was to involve adult learners in a learning experience structure considering learning need, planning and teaching evaluation. Adults were interested in learning subjects that were relevant and had direct impact on their job and personal life, while adult's learning focused more on problems than content orientation (Machynska & Boiko, 2020). It could be concluded that each individuals had different characteristics and behavior that were influenced by their perspective. An interesting learning process could influence the interest and could be seen by evaluating each individual.

Motivation

Motivation was influenced by individual internal external factors such as needs, desirability, goal and learning characteristics (Allen *et al.,* 2013). The motivation was also influenced by learning materials (Bathgate *et al.,* 2014). Analysis results showed that motivation and perseverance could be used to predict a skill because at beginner level, a skill was influenced only by motivation and at intermediate level the skill was influenced by motivation and perseverance, while at advance level it was influenced by perseverance (Danesh & Shahnazari, 2020). Learner's intrinsic motivation included the belief in the ability to achieve goals and to make achievement. Consistent with social cognitive theory, the belief in the ability to achieve goals was the motivating factor that most significantly correlated to achievement. Findings showed that educators should used examples by involving educators and learners to stimulate motivation, to make achievement and to stimulate learner's interest (Bryan *et al.,* 2011). Learning would never work without any interaction among learning components.

Therefore, the learning components should be in cooperation that learning became efficient (Pane & Dasopang, 2017). Intrinsic motivation had positive impact on the behavior in learning process and the behavior in the learning process had significant impact on student's creativity (H. Wang *et al.,* 2022). It could be concluded that motivation was influenced by intrinsic and extrinsic factors and educator's creativity was required to stimulate learners' interest and motivation so that the learning goals could be successfully achieved.

Implementation

Austria, Germany and Switzerland developed mixed model using job-based academic education by combining vocational training elements and high education. However, in Austria and Switzerland the mixed model has been integrated in government system model, while in Germany it was not integrated into government system (Graf, 2016). Employment decreased and non-permanent job became more common, skills were considered to be important in occupational success. The reform in training sector in Austrralia has been gradually taking place since 1980, the established training design considered market scope through communication forum, consultation and meeting of employment affairs attended by entrepreneurs, government and labor union. Skill teaching should meet specific quality requirement (Gekara & Snell, 2018). Individual difference played an important role in sustainable behavior structure and the behavior structure influenced sustainable motor skill learning (Studenka *et al.,* 2017). Collaborative learning was a process in which learners at various capability levels cooperated with each other in small groups to achieve common goals and it had huge potential for the development of learner's independence. Collaborative learning influenced learner's independence (Atman Uslu & Yildiz Durak, 2022). The implementation of competence-based education supported by good educators gave learners hope of getting good job in the future (van Griethuijsen *et al.,* 2020). Skill development represented key instrument to meet sustainable development targets in developing countries. Human resource development in India played an important role globally considering that India as economically fast-growing economy with the fastest growth in the world was ready to be the country with the biggest number of working age population. The study also dealt with the challenges before policy makers were interested in human resource development through skill schema in India and aimed at explaining the way to move forward for the skill initiative in the country (Gupta & Dharap, 2022). It could be concluded that in developing and developed countries, individual skill aspect played an important role in decreasing unemployment and in supplying foreign workforce. The assurance in getting skills was regulated by government by integrating skill training into education.

CONCLUSIONS

Based on the results of the study it was concluded that interest and motivation were influenced by intrinsic and extrinsic factors that could subsequently influence learning result, while the learning result could be found out in the implementation of the learning results. It was necessary to organize hard skill learning using repetitive method consistent with stimulus-response theoretical perspective. Also, it was necessary for educators to make special supervision to encourage learners to do repetitive practice.

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