

## Evaluation and acceptability of instructional guide in Futsal

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**Abstract:** The K to 12 PE Curriculum develops the students' skills in accessing, synthesizing and evaluating information, making informed decisions, enhancing and advocating their own and others' fitness and health. As a Futsal enthusiast, coach, and trainer in a public national high school, the researcher intended to institutionalize and make the teaching of Futsal to learners more interesting and meaningful. Hence, this study aimed to develop teacher-made instructional guide in enhancing Futsal skills. Using the mixed methods research, the researchers determined the evaluation and acceptability of the teacher-made instructional guide and determine the inputs from the evaluators towards the development of the said instructional guide. The study was conducted in the Division of Capiz for the Academic Year 2022-23 with 12 experts and 30 students from the Division of Capiz who were invited to evaluate the researcher-made instructional guide in Futsal. The data were obtained by administering a standardized evaluation rating sheet for print sources of the Department of Education to assess the evaluation and acceptability of the teacher-made training guide for Futsal. Furthermore the instrument consisted of a matrix that guided the evaluators in assessing the acceptability of the training manual in terms of content, format, and accuracy and organization of information. Frequency count, percentage, and mean were the tools used to analyzed the qualitative data, while quantitative data were analyzed using thematic analysis. Based on the findings it was found that the teacher-made instructional guide in enhancing Futsal training was Very Acceptable in general and in terms of its content, format, and accuracy and organization of information. Furthermore, the inputs shared by the evaluators towards the enhancement of the teacher-made instructional guide were on providing more specific instructions/guides for the players; adding more visual instructions/details; focusing on improving Futsal skills; and inclusion of practical application of skills in the assessment/evaluation. Following this input, the researcher integrated the feedbacks from the evaluators in producing an enhanced instructional guide in Futsal training.

Keywords: Futsal, Instructional Guide, Training

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## INTRODUCTION

The Department of Education (2021) recognizes that sports are still an integral part of the daily life of the learners. It is the curricular philosophy of the K to 12 Physical Education Curriculum to promote healthy and active Filipino learners. Fitness and movement education content is the core of the K to 12 PE Curriculum. It includes value, knowledge, skills and experiences in physical activity participation in order to (1) achieve and maintain health-related fitness (HRF), as well as (2) optimize health. In particular, it hopes to instill an understanding of why HRF is important so that the learner can translate HRF knowledge into action. Thus, self-management is an important skill. In addition, this curriculum recognizes the view that fitness and healthy physical activity behaviors must take the family and other environmental settings (e.g. school, community and larger society) into consideration. This curricular orientation is a paradigm shift from the previous sports-dominated PE curriculum aimed at athletic achievement. Move to learn is the context of physical activity as the means for learning, while Learn to move embodies the learning of skills, and techniques and the acquisition of understanding that are requisites to participation in a variety of physical activities that include exercise, games, sports, dance and recreation.

Furthermore, the K to 12 PE Curriculum prioritizes the following standards: habitual physical activity participation to achieve and maintain health-enhancing levels of fitness; competence in movement and motor skills requisite to various physical activity performances; valuing physical activities for enjoyment, challenge, social interaction and career opportunities; and understanding various movement concepts, principles, strategies and tactics as they apply to the learning of physical activity.

An informal form of futsal, then called indoor football, has been played in the Philippines as early as the 1960s to the 1980s, which is usually played as part of a cross training for footballers during rainy weather using regular association football rules. Futsal was officially introduced to the Philippines, when the Philippine Football Federation (PFF) under the President Manuel Tinio along with the Gintong Alay program headed by Michael Keon, the San Miguel Corporation, and Adidas held a ‘mini football’ exhibition match. The Philippine Football Federation organized a futsal league from 2009 to 2016 which was known as the Philippine Futsal League, when its futsal committee was headed by Iranian coach, Esmaeil Sedigh. The PFF has lobbied the inclusion of futsal in youth sports tournaments organized by the Philippine government. In 2016, the Department of Education included futsal as an official sport for girls competing in the secondary division of the Palarong Pambansa, a national multi-sports tournament for student athletes. In 2019, the education department named futsal as a demonstration event for the elementary division of the same games. In 2018, the Philippine Sports Commission reincluded futsal in the National Youth Games for U13 and U15 boys and girls. Since then, futsal has become a staple in sports programming of the Department of Education and has been among the sports during the Palarong Pambansa. In 2016, the Henry V. Moran Foundation began supporting the PFF futsal program. The foundation launched the Liga Eskwela Futsal program which aimed to teach public school teachers the fundamentals of the sport.

As a Futsal enthusiast, coach, and trainer in a public national high school, the researcher intended to institutionalize and make the teaching of Futsal to learners more interesting and meaningful. Furthermore, the Division of Capiz has no standard instructional guide in Futsal training that trainers, coaches, and MAPEH teachers could use both in training players and in teaching Futsal in the class. Hence, it is his desire to develop an instructional guide in Futsal as a tool for this endeavour and also as a stepping stone in institutionalizing Futsal training that drove him to conduct of this study.

### *Objective of the study*

This study aimed to develop a teacher-made instructional guide in enhancing futsal skills. More specifically, this study aimed to determine the level of acceptability of the instructional guide in general and in terms of content, format, and accuracy and organization when evaluated by students.

## LITERATURE REVIEW

### *Sports in Physical Education*

The Department of Education (2021) recognizes that sports are still an integral part of the daily life of the learners. It is the curricular philosophy of the K to 12 Physical Education Curriculum to promote healthy and active Filipino learners. Fitness and movement education content is the core of the K to 12 PE Curriculum. It includes value, knowledge, skills and experiences in physical activity participation in order to (1) achieve and maintain health-related fitness (HRF), as well as (2) optimize health.

In particular, it hopes to instill an understanding of why HRF is important so that the learner can translate HRF knowledge into action. Thus, self-management is an important skill.

In addition, this curriculum recognizes the view that fitness and healthy physical activity (PA) behaviors must take the family and other environmental settings (e.g. school, community and larger society) into consideration. This curricular orientation is a paradigm shift from the previous sports-dominated PE curriculum aimed at athletic achievement. Move to learn is the context of physical activity as the means for learning, while Learn to move embodies the learning of skills, and techniques and the acquisition of understanding that are requisites to participation in a variety of physical activities that include exercise, games, sports, dance and recreation. (Department of Education, 2019).

The K to 12 PE Curriculum develops the students' skills in accessing, synthesizing and evaluating information, making informed decisions, enhancing and advocating their own and others' fitness and health. The knowledge, understanding and skills underpin the competence, confidence and commitment required of all students to live an active life for fitness and health (Department of Education, 2019).

Furthermore, the K to 12 PE Curriculum prioritizes the following standards: habitual physical activity participation to achieve and maintain health-enhancing levels of fitness; competence in movement and motor skills requisite to various physical activity performances; valuing physical activities for enjoyment, challenge, social interaction and career opportunities; and understanding various movement concepts, principles, strategies and tactics as they apply to the learning of physical activity (Department of Education, 2019).

The curriculum emphasizes knowing the 'what', 'how' and 'why' of movement. It focuses on developing the learners' understanding of how the body responds, adjusts and adapts to physical activities. This will equip the learner to become self-regulated and self-directed as a result of knowing what should be done and actually doing it; is the learners are equally confident in influencing their peers, family, immediate community, and ultimately, society. These are all valuable 21st century skills which the K to 12 PE Curriculum aspires for the learners to develop (Department of Education, 2019).

The program has five learning strands: Body management which includes body awareness, space awareness, qualities and relationships of movements and how these are used dynamically in various physical activities; Movement skills related to the fundamental movement patterns and motor skills that form the basis of all physical activities; Games and sports consisting of simple, lead-up and indigenous games; as well as individual, dual and team sports in competitive and recreational settings; Rhythms and dances include rhythmical movement patterns; the promotion and appreciation of Philippine folk dance, indigenous and traditional dances as well as other dance forms; and Physical fitness includes assessment through fitness tests and records, interpreting, planning and implementing appropriate programs that support fitness and health goals (Department of Education, 2019).

In the physical fitness strand, the learners are expected to demonstrate understanding of guidelines and principles in exercise program design to achieve fitness. Exercises and activities are geared towards the physical development of an individual through endurance, muscle- and bone-strengthening activities through team sports, like basketball, volleyball, football/futsal, goalball, softball, and baseball (Department of Education, 2019).

The priority in Futsal is to motivate players in an environment that is conducive to learning. The more pleasure kids derive from their participation, the more they wish to play and practice on their own. While their instinct to play is natural, their affection and appreciation for soccer must be cultivated. Futsal is the foundation to such goals because it: allows players to frequently touch the one "toy" on the field, namely, the ball; presents many opportunities to score goals and score goals often; encourages regaining possession of the ball as a productive, fun, and rewarding part of the game (defending); maximizes active participation and minimizes inactivity and boredom; provides a well-organized playing environment with improvised fields; reflects the philosophy of player development expressed

in state and national coaching schools; eliminates complicated rules such as off-sides that may hinder youngsters from “playing”; reflects the appropriate role of the coach as a Facilitator; and makes the game more “beginning coach” friendly because the game is simpler, thus making it easier to recruit more volunteer “coaches” (U.S. Futsal, 2019).

Hence, integrating futsal and teaching it among junior high school P.E. students is expected to equip them with the balance, motor ability, agility and co-ordination, ball mastery, accurate and quick passing and receiving, perception insight and awareness. Children learn through repetition and practice in small areas this occurs naturally. As Futsal is fast and action packed, fitness is improved while learning and having fun. We find children love playing Futsal. It is exciting, many goals are scored and the game is devoid of complex rules such as off side. Children learn so much faster if they enjoy the game and spend a lot of time playing with the ball (U.S. Futsal, 2019).

### *Futsal in Physical Education*

Futsal, a variant of football, is a sport played worldwide at amateur, semi-professional and professional level. The sport has a long standing history, dating back to the 1930’s in South America, where it was, and still is known as 'futebol de salao' (translated from Portuguese as 'hallfootball'). FIFA standardised the sport and branded it the official version of '5-a-side' to create a structure to allow futsal to develop worldwide.

Futsal teaching in schools, however, still involves didactic-methodological procedures that guide the teaching conduct, with an emphasis on deliberate practice and motor skill acquisition. Relations among students, teachers, and the world are, therefore, based on the Cartesian paradigm, given the fragmentation of contents and the determinism in the interpretation of phenomena. In this sense, researches highlight the limitation of educational results due to sports learning and teaching practice supported by the Cartesian worldview. By proposing to discard these traditional pedagogical approaches in sports focused on teaching techniques without theoretical reflection, the authors started a movement called ‘emerging trends in Sport Pedagogy.’ Supported by a paradigm shift of a systemic-complex focus, the emerging trends in Sport Pedagogy reveal the need for pedagogical intervention that favors an interrelationship and interdependence of physical, biological, psychological, social, and cultural phenomena<sup>7</sup> These elements guide the implementation of methodologies for the interaction between the subjects involved in the teaching-learning process and the environment where they are inserted, as well as an understanding of the tactical dimensions of futsal based on the game phenomenon and its pedagogical intentions. (Gayardo, Matana, & da Silva, 2012)

Considering the scenario above and the opportunity to better reflect and understand several elements of our experience with futsal, in order to expand this discussion beyond our understanding of futsal practice in the school context and taking into account the plurality of pedagogical approaches in the teaching-learning processes, we attempted to identify perspectives of the main mediators of this process - the teachers. (Mottaghi, Atarodi & Rohani, 2013)

The study of Moore, Bullough, Goldsmith, & Edmonson (2014) perceived a strong singularity of futsal as the content of Physical Education. The cultural impact of this sport is seen in the interest of students and, therefore, futsal receives special treatment. Regarding the application of teaching-learning procedures, a plurality of teaching concepts and different methodologies could be observed, which include game control and fragmentation into parts, a more systemic understanding, and appreciation of tactical elements, as well as free play and minimal teacher intervention.

The experience with futsal has influenced the performance of teachers interviewed in this investigation. Many influences of the prior student experience are reflected in their pedagogical practices. The elements identified include gender issues. Although the teachers demonstrate the desire to promote greater equity in access to quality futsal for boys and girls, many aspects in the structuring of classes reinforce an opposite move. This study also provides new light on the teachers Physical Education Degree, which may raise questions about how this process helps to overcome traditional teaching models and how teachers, throughout under-graduation, can build significant knowledge about the pedagogical practice relate to Brazilian educational legislation. Furthermore, in addition to the education process, this study reveals complaints regarding the modus operandi of School Physical Education, based on the structural and curricular conditions offered in the research contexts (Moore, Bullough, Goldsmith, & Edmonson, 2014).

There is a lack of literature about the relationship between football and education, even though it is understood that futsal is a popular sport in some countries played at schools and universities and means of social improvement linked to national programmes. Moore, Bullough, Goldsmith, & Edmonson (2014) analysed physical education as a part of education and vocational training in higher educational institutions, aimed at obtaining psychophysical readiness for professional work using applied vocational physical training (AVPT). The study looked to determine the role of futsal classes as it was a popular sport among young students. They suggested that 'futsal classes facilitate high efficiency and reliability of central nervous, muscular, thermoregulatory systems, as well as of auditory and visual analysers and such important qualities for potential civil engineers as general endurance, hand dexterity, responsiveness, vestibular tolerance, volume, distribution and switch of attention, emotional stability and initiative'. This is an interesting study as it considers characteristics of a sport which may impact on the educational development of a young person.

## METHODOLOGY

### *Research design*

This study aimed to develop teacher-made instructional guide in enhancing futsal skills. In order to ascertain the evaluation and acceptability, the researcher used the mixed methods research employing descriptive research, as well as qualitative research employing descriptive and qualitative data analysis to evaluate the acceptability of the teacher-made instructional guide and determine the inputs from the evaluators towards the development of the said instructional guide.

### *Locale of the study and respondents*

The study was conducted in the Division of Capiz for the Academic Year 2022-23. There were 42 respondents who were involved in futsal who were invited to evaluate the researcher-designed futsal instructional material. They were 7 futsal referees in the national and regional levels, 3 futsal trainers/coaches, and 32 students who were playing futsal. They were identified based on the following criteria: must have been involved in playing futsal, either as a referee, trainer, coach, or player for at least 3 years and must have had formal training in futsal.

### *Research gathering tool*

The data needed for this study were obtained by administering a standardized evaluation rating sheet for print sources of the Department of Education to assess the acceptability of the teacher-made training guide for futsal. The evaluation sheet was modified to suit the readability and comprehensibility of the teachers and the students. Hence, two sets of

evaluation sheet were prepared. The evaluation sheet consisted of a matrix that guided the evaluators in assessing the acceptability of the training manual in terms of content, format, and accuracy and organization of information.

The evaluation sheet was considered as a standardized tool that is being used by the Department of Education in evaluating instructional materials used by its teachers. The sheet was downloaded from the agency's Learning Resources Management and Development System (LRMDS). Likewise, considering the condition of the students, the researcher modified the sheet to suit the readability and comprehension of the learners. Furthermore, the researcher sought the concurrence of the Office of the Division Superintendent that he would be adapting the said evaluation sheet.

#### *Data Gathering Procedure*

The researcher secured a permission from the Schools Division Superintendent with the endorsement of the Dean of the College of Education and the Division Supervisor for MAPEH to conduct the study. After the approval, he proceeded with the evaluation.

First, he reproduced copies of the draft instructional guide equivalent to the number of evaluators. Then he scheduled an appointment with each of the evaluators upon their convenience. He did this either in-person or online, depending on the preference of the respective evaluators. After determining their preferred mode of meeting and schedule, he met the evaluators. He first gave them a brief introduction about his study and then discussed with them the mechanics on how the instructional guide should be evaluated. He then gave them 3-5 days to accomplish the evaluation form. Once the researcher had confirmed with the evaluator that the review and assessment was done, he would then schedule another meeting for retrieval and feedbacking. He also checked every evaluation sheet if they were completely accomplished and all the items have been rated. A scoring guide was provided by the researcher to help the evaluators in assessing the evaluation sheet.

#### *Data analyses procedure*

The quantitative data procedure was employed in assessing the acceptability of the instructional guide. Frequency count and percentage were used determine the number of observations and their corresponding percentages, while mean was used to describe the acceptability of the instructional guide for futsal.

## FINDINGS AND DISCUSSION

Following the evaluation conducted by the teachers, coaches/trainers, and players of futsal, it can be gleaned that the researcher-made instructional guide in futsal garnered a mean score of 4.91. This indicates that the instructional guide was found to be Very Acceptable.

Furthermore, the mean score of the four criteria for evaluation did not vary that much. This only shows that the instructional materials were prepared in a consistent manner or that the criteria possessed almost the same qualities to merit the Very Acceptable rating by the student evaluators.

The implication of this statement is that the instructional manual successfully catered to the age group and level of understanding of the students, as evidenced by the use of suitable language. The manual employed words and vocabulary appropriate for the students' age and comprehension, ensuring that they could grasp and engage with the content effectively. The varied and interesting sentences and paragraphs indicate that the manual was written in a way that maintained the students' interest and made the learning experience more enjoyable. Additionally, the manual contained timely and relevant information that aligned with the students' specific interests and learning goals regarding futsal. Overall, these implications

highlight the manual's effectiveness in engaging and meeting the specific needs of the students, enhancing their understanding and motivation in learning about futsal.

Furthermore, the visual elements were accompanied by clear and informative labels or captions, providing additional context and aiding comprehension. Proper labeling ensures that the students can accurately interpret and make use of the visual information presented. Add to this, the material effectively utilized appropriate and labeled photos and illustrations that catered to the age and learning needs of the students. This enhances their visual learning experience, supports comprehension, and facilitates their engagement with the content.

## CONCLUSIONS AND RECOMMENDATION

### *Conclusions*

The positive evaluation of the instructional guide indicates that it successfully meets the needs and expectations of learners. The content of the guide was found to be suitable and well-thought-out, providing comprehensive and relevant information that caters to the learner's level of development. The format of the guide, including the use of appropriate font size, culturally relevant materials, and easily recognizable layout, contributed to an engaging and user-friendly learning experience. The guide's accuracy and organization of information were commendable, with no significant errors or inconsistencies found. Overall, the high level of acceptance of the instructional guide highlights its effectiveness in enhancing Futsal training and validates its value as a valuable resource for learners and instructors in the field.

The suggestions to provide more specific instructions and guides for the players highlight the importance of clear and explicit guidance to enhance their understanding and execution of Futsal skills. The recommendation to incorporate more visual instructions and details recognizes the power of visual aids in facilitating comprehension and engagement. Focusing on improving Futsal skills aligns with the goal of the instructional guide, emphasizing the need to prioritize skill development and proficiency. Lastly, the suggestion to include practical application of skills in the assessment and evaluation emphasizes the importance of assessing learners' ability to apply their acquired knowledge in real-game situations. Integrating these inputs into the instructional guide has the potential to enhance its effectiveness, providing learners with a more comprehensive and practical learning experience in Futsal.

### *Recommendations*

Although the instructional guide has received positive feedback, it is essential that the researcher continuously enhance and enrich its content. Regular reviews and updates may be conducted to ensure that the content remains up-to-date, relevant, and aligned with evolving trends and best practices in Futsal training.

The Department of Education Capiz Division may offer training and professional development sessions for instructors to familiarize themselves with the instructional guide and its effective implementation. This will help instructors optimize its use and ensure consistency in its delivery across different learning environments.

Futsal trainers, coaches and MAPEH teachers may recognize the diverse needs and preferences of learners by encouraging instructors to customize and adapt the instructional guide to suit specific contexts or target audiences. This flexibility will promote inclusivity and enhance the guide's applicability across various Futsal training programs.

Futsal trainers, coaches and MAPEH teachers may incorporate mechanisms for ongoing assessment and feedback from learners and instructors. This will provide valuable insights for further refinement and improvement of the instructional guide, ensuring that it continues to meet the needs and expectations of its users.

The researcher may conduct research and evaluation to measure the long-term impact and effectiveness of the instructional guide on learners' Futsal skills and performance. This will contribute to the body of knowledge surrounding Futsal training and guide future enhancements to the instructional guide.

## REFERENCES

- Abril, R.M. (2021). What is Organization Information? In Encyclopedia of Knowledge Management. IGI Global.
- Almeida, C. H., Ferreira, A. P. & Volossovitch, A. (2013). Offensive sequences in youth soccer: effects of experience and small-sided games. *Journal of Human Kinetics*, 36 (1), 97-106.
- Altmann, H. & Dos Reis, H. H. B. (2013). "Futsal women in South America: coping trajectories and achievements". *Movimento [journal]*, 19(3), 211-232.
- Baroni, B. M., & Leal, E. C. P. (2013). Aerobic capacity of male professional futsal players. *Journal of sports medicine and physical fitness*, 50(4), 395-399
- Benton, N. (2012). Futsal fever, *Australasian Leisure Management*, issue 94, p64.
- Broman, D., Fearn, R., & Wittenberg, M. (2013). Muscle and tendon injuries at an international multi-sport tournament: European Maccabi Games 2011. *British Journal of Sports Medicine*, 47(10), 35-36.
- Broman, D., Fearn, R., & Wittenberg, M. (2013). Muscle and tendon injuries at an international multi-sport tournament: European Maccabi Games 2011. *British journal of sports medicine*, 47(10), 35-36.
- Chen, Y.Z. (2012). Development strategies of futsal league in china *journal of Chengdu Sport University*, 37(7), 2012, 60-63.
- Council Rock School District (2019). Selection of Print Material Required for Classroom Use. Retrieved from: <https://www.crsd.org/cms/lib/PA01000188/Centricity/Domain/61/AdminRegs/AR-109-R-2.pdf>
- Department of Education (2019). K to 12 Curriculum Guide. Retrieved from <https://www.deped.gov.ph/wp-content/uploads/2019/01/pe-cg.pdf>
- Duarte, R., Batalha, N., Folgado, H., & Sampaio, J. (2019). Effects of exercise duration and number of players in heart rate responses and technical skills during futsal small-sided games. *Open sports sciences journal*, 2, 37-41.
- Fonseca, s., et al. (2013). Measuring spatial interaction Behavior in team sports using superimposed voronoi diagrams. *International Journal of Performance Analysis In Sport*, 13 (1), 179-189
- Gayardo, A., Matana, S. B., & Da Silva, M. R. (2013). Prevalence of injuries in female athletes of brazilian futsal: a retrospective study. *Revista Brasileira De Medicina Do Esporte*, 18(3), 186-189.
- Gayardo, A., Matana, S. B., & Da Silva, M. R. (2013). Prevalence of injuries in female athletes of Brazilian futsal: a retrospective study. *Revista Brasileira De Medicina Do Esporte*, 18(3), 186-189.
- Gheorghe, C., & Ion, c. (2013). The futsal players' physical training during the special training period. *Gymnasium. Journal of physical education & sports*, 12(2), 125-128.
- Gomes, A. R., Pereira, A. P. & Pinheiro, A. R. (2018). Leadership, cohesion and satisfaction in sporting teams: a study with Portuguese football and futsal athletes. *Psicologia: reflexao e critica*, 21 (3), 482-491.
- Karahan, M. (2013). The effect of skill-based maximal intensity interval training on aerobic and anaerobic performance of female futsal players. *Biology of sport*, 29(3), 223-227
- Moore, R. Bullough, S., Goldsmith, S. & Edmondson, I. "a systematic review of futsal literature." *American journal of sports science and medicine*, 2, 3 (2014): 108-116. Doi:10.12691/ajssm-2-3-8.

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Moreira, V.J.P., Da Silva Matias, C.J.A., Greco, P.J. (2013). Motriz. Revista de educacaofisica [journal], 19 (1), pp. 84-98.

Mottaghi, M., Atarodi, A. & Rohani, Z. (2013). The relationship between coaches' and athletes' competitive anxiety, and their performance. Iranian Journal of Psychiatry and Behavioral Sciences, 7 (2), 68-76.

Mottaghi, M., Atarodi, A. & Rohani, z. (2013). The relationship between coaches' and athletes' competitive anxiety, and their performance. Iranian journal of psychiatry and behavioral sciences, 7 (2), 68-76.

Reis, I., Rebelo, A., Krstrup, P., & Brito, J. (2013). Performance enhancement effects of federation internationale de football association's 'the 11+' injury prevention training program in youth futsal players. Clinical journal of sport medicine, 23(4), 318-320

Reis, I., Rebelo, A., Krstrup, P., & Brito, J. (2013). Performance enhancement effects of federation internationale de football association's 'the 11+' injury prevention training program in youth futsal players. Clinical journal of sport medicine, 23(4), 318-320

Sampaio, J., Macas, V., Abrantes, C., & Ibanez, S. J. (2017). Season variation in repeated sprint ability of futsal players. Journal of Sports Science & Medicine, 6.

Serrano, J., Shahidian, S., Da Cunha Voser, r., & leite, n. (2013). Incidence and injury risk factors in portuguese futsal players. Revistabrasileira de medicina do esporte, 19(2), 123-129.

U.S. Futsal (2021). About U.S. Futsal. <https://futsal.com/benefits-of-futsal/>