

ISSN : 2319 - 7242

International Journal of Engineering And Computer Science

VOLUME NO. 13

ISSUE NO. 1

JANUARY - APRIL 2024

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International Journal of Engineering And Computer Science

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International Journal of Engineering and Computer Science

(Volume No. 13, Issue No. 1, January - April 2024)

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The Effectiveness of Artificial Intelligence on Education: Learning During the Pandemic and in the Future

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ABSTRACT

This paper reviewed ten international publication about the effectiveness of Artificial Intelligence in Education: During the Pandemic and Learning in the future. Since the pandemic has disrupted world education, distance learning has become an alternative by relying on machine learning. To understand the extent of the power of artificial intelligence in education both during the COVID-19 period and the future learning period, we try to understand it through the example of ten international scientific publications that speak out about artificial intelligence in education today and the future of earning. Besides reviewing ten papers, we also conducted an online search engine for related literature. We performed searches with keywords such as "artificially intelligent," "learning during a pandemic," and "future learning," Then, we analyzed a phenomenological approach to ensure our findings answered the study questions under a qualitative method design. By considering the evidence of research and literature, we can summarize our findings, among others, that the critical understanding of artificial intelligence in education, the use of AI in education, typical Learning in the pandemic era, and the role of AI in pandemic learning as long as residents and future Learning still depend on data patterns and automation based on learning tasks that are smarter than usual. It helps students be more focused on learning experiences and identify if they do not understand the topic. Most importantly, the teachers are helpful in the process of assessing student learning outcomes.

Keywords---*artificial intelligence, education during the pandemic, future learning, international publications.*

INTRODUCTION

The importance of artificial intelligence (AI) is currently being developed on a large scale and has received attention from educational circles. Today's AI will imitate and even take over the tasks that are usually done by humans. Lu et al. (2018), said that several tech companies had implemented AI, including Amazon, Facebook, Microsoft, and Google. However, few know that this AI has also entered the world of education and teaching. Along with the development of schools followed by technology. For example, the accounting field in college uses online textbooks through practical software. Even the founder of Microsoft, Bill Gates, is one of the supporters of AI in education. Gates even believes that AI will be able to improve human Learning in various ways. Based on these beliefs, we want to understand the effectiveness of artificial intelligence in education during pandemics and future Learning (Güzer & Caner, 2014; Engeström & Sannino, 2010).

Li et al. (2020), examined that artificial intelligence has succeeded in distinguishing the COVID-19 from pneumonia that attacks the chest's community. Talking education means learning speaking smarter than the usual way before AI was invented. This AI system's learning program is a personalized learning system that enhances the student learning experience more profoundly and enjoyably. Understanding how AI in individual systems shows that it can improve student focus. The reason is that AI can teach students individually and identify areas needed to find effective ways of teaching students through

artificial intelligence. For example, if a student's AI technology is interested in a hobby, the AI machine will be used as an analogy or example to understand the subject matter. In other words, this machine will identify if students do not understand. Furthermore, AI intelligence can determine what kinds of concepts are not to be understood by students. So later, AI can make adjustments to find new ways to help student learning that is the advantage of this AI engine for improving today's generation learning services.

AI is designed to expand the readiness of artificial intelligence programs in modern-generation education investments. With AI, this program is also held to help students apply artificial intelligence to develop technological literacy, in line with implementing the Industry 4.0 program in each country that is already eyeing advanced technology-based educational projects in the 21st century. In many countries that have started to glance at AI, schools have developed solutions to overcome the various challenges faced by the world of teaching, especially the world of education (Boden, 1998; Alava et al., 2017). The community must continue to learn and work through the world of education. Especially in the era of the COVID-19 pandemic using artificial intelligence, students will significantly learn and save themselves from the plague's spread.

When discussing advancing education in the Industrial Revolution Era 4.0, learning experts often mention that teaching in the revolutionary era is designed to describe various methods of integrating digital technology both physically and non-physically in the younger generation's Learning (Aslan, 2020; Putra et al., 2020). This teaching in the Industrial Revolution Era 4.0 opens a phenomenon that responds to changes with the industrial revolution by adjusting new agendas according to the current situation. This 4.0 revolution curriculum program will open a window of education through digital with the help of utilizing the internet of everything. On the other hand, education also gets more choices and teaching methods that are very popular in young countries.

However, some things are not free from challenges for teachers to implement. According to Lase (2019), educators must have several competencies in the Industrial Revolution Era 4.0. First, critical thinking and problem-solving skills. These skills are the ability to understand a problem, get as much information as possible to be elaborated on, and bring various perspectives to solve the problem. Teachers are expected to be able to concoct learning and export these competencies to students. Next are communication and collaboration skills. These skills are not free from information technology-based abilities to apply collaboration in the teaching process.

Furthermore, creative and innovative thinking skills are essential. With these skills, teachers hoped that teachers in the learning process could apply new ideas to spur students to think creatively and innovatively, especially in doing tasks using technology and information. The last one is technology and information literacy. Teachers are expected to obtain many references in using technology and knowledge to support the teaching and learning process for strengthening the technological literacy skills of the nation's generation living in the modern age.

Artificial Intelligence in learning in the pandemic Era of COVID-19 is supported by revolution 4.0. Even learning in the COVID-19 era is full of panic due to widespread coronavirus that attacks the respiratory system; Indonesia is currently facing days against COVID-19, and the government has even issued a new policy that essentially states an extension of the working period from home and an adjustment of the work system, which helps with technological sophistication. It does not mean that public services such

as education services are eliminated. Learning services in the COVID-19 era can be done online with technology or artificial intelligence. Studying at home through specific applications, online lectures, online guidance, and seminars are examples of educational services that accelerate education implementation in the Revolution 4.0 era. How can not both teachers and students be encouraged to understand at least the use of digital technology? On the other hand, students are also encouraged to explore technology and information and channel their creativity through innovations in school assignments.

On the other hand, education in the COVID-19 era is also an opportunity to collaborate with fellow citizens learning online. Learning and adjustments are needed in implementing Revolution-era 4.0 education. However, it cannot be denied that the COVID-19 outbreak is one of the driving forces for applying this learning system using artificial intelligence technology. On the other hand, apart from being required to understand technology and information and implement it. Even so, of course, there are problems that arise, namely related to adequate infrastructure. Besides, learning in the COVID-19 era must also ensure that the internet is available in the education area. Behind this, students are required to adapt and take advantage of the 4.0 Revolution-era education by implementing the internet. Examples of collaboration, for example, have been carried out by students in various places.

With this artificial intelligence, students will efficiently complete individual assignments by making posters/videos about supporting learning content. For example, individual projects develop the ability to create specific applications to help online public service systems without requiring service users to go to service locations. All of these are the conveniences possessed by artistic intelligence. It may be possible, for example, for a single online submission being implemented. It is not impossible for students can create online applications that facilitate the process of providing public services. During the outbreak of COVID-19, education in the Industrial Revolution 4.0 can be implemented with certain adjustments without overriding things that need more technical attention, for example, the impact and weaknesses. On the other hand, the demands of students' roles are expected to bring positive changes in the middle of a situation through the teacher's understanding. It is time for us to collaborate in realizing opportunities to work and learn amid the COVID-19 pandemic.

Much literature proves the effectiveness of artificial intelligence on education projects, especially learning during the pandemic and in the future. The current application of artificial intelligence in Indonesia is not yet, as stated in the reading context. The role and superiority of artificial intelligence in education, supported by technological sophistication, is the progress of learning civilization in the modern age. Currently, the learning period of the COVID-19 period has indeed proven to be very disturbing. With the advent of technology, the prospects for students' future through artificial intelligence projects for education are more real Learning that uses artificial intelligence to project technological applications with artificial intelligence in the future - and revolutionary technology 4.0 has been tested in educational practice. To see the effectiveness of this artificial intelligence in future education, we have highlighted ten international publications with various contemporary issues and lessons tested in every literature covered in this study.

METHOD

The aim of this model is that we wanted to understand the effectiveness of artificial intelligence in learning education during the pandemic and in the future. To make it easier to understand artificial intelligence's practical and application, we have conducted a series of data collection from ten

international published papers that examine the above issues. After the data collected, we analyzed qualitative application through the coding system, in-depth interpretation, and concluding. Analysis to be a valid and reliable finding, the conclusions we draw must answer the research questions. The way to search is we use keyword searching, for example, "effectiveness of artificial intelligence," "study of the pandemic period," "study of the future," the international publication, "and "qualitative study. "

FINDINGS

As said earlier, this study's primary purpose was to understand the effectiveness of artificial intelligence (AI) in education. In particular, this study will see how typical Learning during pandemic and future supported AI solution from ten international publications reviewed and presented here: Scientific studies in artificial intelligence education have developed rapidly over the past few decades. As educators and researchers look back and reach the younger students' future, they naturally want to understand the advantages of artificial intelligence in future education? Also, what opportunities has this artificial intelligence machine provided for the learning future of generations next?

To understand it, we have analyzed ten papers published in international journals over the past ten years. We learn a typical scenario that advances the field of technology-assisted education, especially human-made intelligence. With the hope that the results of the ten papers will be discussed and suggested by a series of instructional studies conducted to help to learn in the pandemic period and the future; for example, the accelerated learning process, focusing on learning solutions during the pandemic, how students can collaborate in Learning while saving a life, and the adoption of technology to achieve the learning outcomes. In the revolutionary process, 4.0 educators and researchers work together investing in educational technology for students' future practice, relevant to the era, culture, goals, and the millennial generation learning community.

ARTIFICIAL INTELLIGENCE UNDERSTANDING

Valle-Cruz & Sandoval-Almazan (2018), conceptualized the understanding of artificial intelligence applied nationally through meta-analysis to identify understanding, systems, and applications for education nationally. They found that AI is very useful in decision making, efficiency, ecosystem changes, biomedicine, disaster prevention and response, teaching, and public services, among the government's applications nationally. To go deeper into the understanding of AI, a study from Samek et al. (2017), has summarized the latest developments in artificial intelligence and make a plea for deeper interpretability of that artificial intelligence. Their study also presented a new approach to the prediction of meaningful ideas and ways of Learning. This way of understanding the predictive sensitivity of AI concerning input development through a method to whole describes results in terms of learning input variables through several ways evaluated on three classification models.

Meanwhile, Frank et al. (2019), finding also has confirmed that the technological advances in AI and technological advances in automation have the opportunity to rob people of human labor opportunities significantly. Because AI, with its automation, can increase productivity manifold compared to workers. The advancement of AI can replace humans. It is likely to change all human jobs even though it is still to some degree. Advances in automation occurred when the economy was at a disadvantage during the global disruption of COVID-19. It raises concerns about human unemployment due to the sophistication of AI, especially human-made results.

HOW USEFUL ARTIFICIAL INTELLIGENCE IN EDUCATION

Understanding effective AI, Du Boulay (2016) gave a deeper understanding of how artificial intelligence brings significant partner in Learning. This AI program appears to marginalize social roles and cognitive excellence. AI for streamlining various learning models and creating systems to encourage students to acquire new skills. Understanding new fields that provide new insights into meta-analyses that creates energetic ways of Learning in which educators can transfer much of ordinary human work to artificial intelligence systems in education for adequate reasons towards learning productivity.

Beck & Mostow (2008), examined the effectiveness of several practical strategies for manipulating, organizing, and exploring data from intelligent Artificial Intelligence. This study tries to mine the information recorded by the AI machine system to understand data and knowledge that is useful for data users (students, researchers, writers, teachers, and other professionals. According to AI, it is beneficial for those who need information that can deliver accelerated education in an accelerated manner. More efficient, productive, and always responsive to the needs of each individual. Through these studies, they factored this discovery process into methods for modifying teachers, mapping heterogeneous AI workings into a collection of information, and investigating. Their analysis identified marking roadmaps for existing areas of information repeller data storage. It can respond to user data and frameworks to keep past, present, and future work in this field of AI studies. They explain this framework model through experiments that test interventions by reading machines auto to help students solve problems and understand problems.

TYPICAL LEARNING DURING PANDEMIC COVID-19

Barton (2020), examined the impact of artificial intelligence in education and teaching alternatives remotely during the pandemic. The result is that instructors in ecology and evolution often conduct field education to teach new lessons. According to Barton, distance learning, which was taught traditionally before the pandemic, has presented unique challenges for students, instructors, and schools and colleges. A survey of 117 faculties during the spring of 2020 resulted in a substantial reduction in learning outcomes typically taught in the field and frequently substituted less active and more instructor-centered distance activities for field activities. The survey generally revealed negative instructor views on many teaching substitutions in the classroom. Still, this study shows some approaches that AI considered to be more effective instructors, even though there are potential challenges on a fair basis. Barton suggests several small substitution models for traditional field teaching on identifying overall teaching with the impact of COVID-19 on-field instruction and remote teaching from the point of view of teachers and instructors.

The role of artificial intelligence in dealing with the learning crisis during the pandemic has become a global issue. Artificial intelligence, such as machine learning, has become part of the field of artificial intelligence, where its role is quite large in helping human Learning in heavy tasks in automation. One of the ways that are continuously being pursued in fighting against this pandemic situation is the use of technology to meet the needs of the school community. Likewise, when the learning crisis impacted by COVID-19 has led to many setbacks in human Learning, various studies have responded with various studies that were tried with innovations in overcoming current learning disabilities (Chao et al., 2020; Lee et al., 2020; Hilburg et al., 2020). Many articles have been published about programs being implemented so that learners do not get distracted by the pandemic. For example, how to analyze information and predict how a pandemic will disrupt human activities, especially learning.

For example, Allam et al. (2020), succeeded in creating an application called BlueDot which is an AI-based program created to detect and discover the concept of how viruses spread disease and provide services to provide early warnings of the dangers and threats of an outbreak a few days before the control center by the world health organization issues a public warning globally. They founded this application website because previous pandemic cases inspired them. The point of their study is how this AI can fight to detect and prevent the virus from starting from the start. This application is super useful for learning during COVID-19.

ARTIFICIAL INTELLIGENCE AND FUTURE LEARNING

Luckin (2018), research, which studied machine learning and human-made intelligence has been able to answer how Learning is in the future for the millennial century. According to Luckin, intelligence is a gift from what makes human beings. But the methods humans use in identifying, discussing it, and evaluating human artificial intelligence also raise another problem. This study invests in artificial intelligence with qualities that humans do not have. Thus, artificial intelligence risks losing the educational capacity to pass on the emotional, cooperative, motoric, and self-effective variables of human-made intelligence that define humans. To make IA useful, Luckin tries to apply AI in future education utilizing a framework that is not difficult for human artificial intelligence to describe. He addresses the comparative limitations of AI when analyzed with the same framework, then recommends a concise method of how future educators can utilize what AI has in mind to sustain and expand the learning capabilities of future generations.

THE ROLE OF ARTIFICIAL INTELLIGENCE DURING THE COVID-19

Nguyen (2020), found that artificial intelligence in the battle against coronavirus (COVID-19) through his survey and future research directions. Besides, he also said that Yitu Tech's Corona Virus Pneumonia Chest CT Smart Evaluation System, other Chinese Internet giants such as Alibaba, Baidu, Tencent, SenseTime, and other AI companies have also launched their new diagnostic applications. They are thereby accelerating the control of the pandemic spreading in China in less than two months. Before the outbreak, artificial intelligence had become the hottest topic in clinical applications in China. US data shows that 84% of radiology clinics in the United States have also developed or are preparing to use artificial intelligence algorithms to examine medical images in 2018. Vinod Khosla, a well-known technology investor in Silicon Valley, predicts that AI algorithms will replace 80% of Human doctors. It is a severe project, and it hopes that it will bring a better future for human working and Learning.

According to Lalmuanawma et al. (2020), Applications of machine learning and artificial intelligence for a pandemic are an essential job as AI is very good at making diagnoses and is likely to bring about disruptive changes in the entire medical industry in the world. However, AI still has two severe problems to solve so far. The problem of the black box effect and the problem of medical responsibility. In the medical field, artificial intelligence's main application is to analyze a patient's medical pictures and check whether the patient is sick or not. Now more science may ask again, Couldn't a human doctor do that as Ai does? If the human cannot, it means people need AI. Therefore, the medical pictures via AI have very high algorithm accuracy. In some of the most challenging cases, AI also can make even more accurate assessments than human doctors do.

DISCUSSION

Artificial intelligence initiation

Artificial intelligence is an essential field in computerization in the present and future era of education. This intelligence is designed to bring about intelligent machine systems beyond the capabilities of human work. This AI field has developed rapidly in the last 20 years in line with industrial technology 4.0 revolution tools' needs. Because this project can answer various problems of modern human needs, the results of recent studies that need to be mastered by academics, students, and technology and education researchers complete with implementations that benefit human race development are how artificial intelligence is beneficial in today's learning pandemic and tomorrow the future of education. Astini (2020), challenges and opportunities for applying technology in distance learning during the pandemic and future generations is engaging. Look at history; artificial intelligence comes from Latin, which means a machine with many skills and understanding. So it can be understood that the basis of artificial intelligence is the ability to understand and take action while solving human problems. The term artificial intelligence (AI) originates from the presence of the computer in the 19th position. However, the history of its development can be traced back to ancient times. However, today, scientists and business people's attention remains focused on the ability of computers to do something that humans can do specifically for the business and education of future generations. In this case, computers can imitate human intelligence and the ability to behave beyond humans. Di Vaio et al. (2020), examined the benefits of artificial intelligence in the agricultural, industrial system. His studies have raised the attention of many experts on rethinking sustainable business models in the COVID-19 scenario to achieve sustainable economic and educational development.

Meanwhile, Ratten (2020) suggested that COVID-19 and the entrepreneurship education community should be a solution with the development of AI. He also reminded that literacy and numeracy models must impact Learning. He also shows how Learning becomes active like machines, and AI can learn and act differently at times than given input. The most significant contribution to the AI field began in the 1950s, which tried to answer, Can computers think? By creating machine learning, expert computing machinery, and intelligence, which discusses a machine's requirements to be considered intelligent. Experts assume that if a machine manages to behave like a human, we can consider it intelligent. To be able to initiate education for the future generation of information.

UNDERSTANDING AI FOR HUMAN PURPOSE

The understanding of AI that can act like humans has been proven by the Turing Test approach, where Turing (1950), proved that AI is designed to answer the satisfying meaning of human tasks from Artificial Intelligence. A computer is said to pass the Turing Test if a human tester can ask several questions and then answer them by contrasting it with someone or a computer's response. Computers must have the minimum ability to pass tests, for example, communication skills, be able to represent skills and knowledge to store what is known or respond, pass reasoning independently to use the stored information to answer questions and at the same time draw conclusions. Lastly, artificial machine learning can adapt to circumstances, detecting and extrapolating new patterns in specific fields.

AI AND FUTURE GENERATION LEARNING

Regarding the effectiveness of future Learning, Arel et al. (2010), managed to convince many experts that deep artificial machine learning without limits in many artificial intelligence studies. His studies provide a general understanding of future learning styles with a significant focus on recent studies

initiated. In this case, it is essential to make sure that each learning framework has strengths and weaknesses. It depends on the application, and the content applied. Hence, their findings provide a glimpse into the current status of AI from the deep-rocky field of future Learning and multiple perspectives on how that field of AI can be useful and innovative in future Learning with a significant commitment to future work.

CONCLUSION

The findings on how the effectiveness of artificial intelligence in future education has summarized the findings? It is including the understanding of artificial intelligence in the world of teaching and education. Then the use and effectiveness of AI in solving human problems, especially learning, unique learning solutions in the era of COVID -19 pandemics, and the critical role of AI in pandemic era education as long as future citizens and machine-based teaching still depend on artificial intelligence machines both in the pandemic state and in the future learning era as well as data patterns and automation based on more practical knowledge tasks. It helps many people to focus more on trial and error experiences if AI is not adequately understood in terms of understanding and role. The most important thing is that teachers are much helped by evaluating the learning outcomes of students and academics in the modern era.

ACKNOWLEDGMENTS

The author is very grateful to those who have played an active role in the initial stages to the finishing of this academic work. First of all, all the deities of lecturers who with their support have provided easy paths and academic understanding which we continue to develop. With the support of all of them, we can achieve this success perfectly until our paper is correctly published. Second, to academic colleagues whom each have provided scientific advice from start to finish with advisory consultations during the research process. Thank you for the support of all who are beyond measure, hope this acknowledgment will facilitate cooperation in the future. This paper with the title "The Effectiveness of Artificial Intelligence on Education: Learning During the Pandemic and in the future."

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Psychological Overcoming: Effective Tool for Karate- Do Trainers

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ABSTRACT

This work consists of an alternative of psychological improvement for the basic coaches of the Karate-Do of the province Santiago de Cuba, based on the need to raise the level of preparation of them, with themes that respond to their needs with an optimal update. The results of the diagnosis determined to design a sports-related improvement program in the education of the moral values of the new generations; dosing of training loads; psychological aspects of the preparation of karate do and the theoretical and methodological foundations of Karate-Do training. In addition, the methodological orientations, the evaluation system and the skills system to be developed by theme are explained in detail. A system of workshops and a postgraduate course were implemented that will give way to elements of cognitive character on how to develop in sports training from the distinctive characteristics of females and males through system of actions that facilitate the integration of knowledge, taking into account the potential of sports training at each stage.

Keywords---*coaches, karate do, psychological overcoming.*

INTRODUCTION

The psychological improvement of coaches in today's world is an indispensable aspect for the athlete to achieve the performance necessary for the competitions, so it is essential for the complexity and variability of the process of the training, demanding the coach a high level of scientific-technical preparation because dealing with thinking beings forces him to master not only knowledge of the sport but, biological and psychological processes of the athlete, which makes him a psychologist, biochemist, sports doctor among other branches of knowledge, which guarantees the success of sports training (Alfonso, 2014; Betancourt, 2009; Bloom et al., 1998). Because of the significant importance of this process in sport and specifically in Karate-Do, it is necessary to delve into this topic, so it was decided to interview in the provincial direction of INDER the responsible for overcoming, posing that the agency in the santiaguera province is governed by the plan of overcoming that exists at the national level, an issue that Karate-Do should be inserted and plan its improvement and methodological preparations by those of the subsystem, then proceeded to interview coaches and sports executives to learn about ways of overcoming them; detecting in the survey that it was necessary to develop a psychological alternative in the improvement program, as the ways that sport uses to raise the scientific level of coaches was not enough, so it is decided to formulate the following:

The problem to be investigated is related to the contribution of overcoming the karate-do base coaches of the Santiago de Cuba province, the scientific objective is to design a psychological alternative in the improvement program for the province's Karate-Do base coaches. So we consider the following Scientific Tasks: Systematization of the theoretical ones that underpin the process of psychological improvement of sport in Cuba; diagnosis of the current situation of the psychological overcoming of

Karate-Do coaches in the Santiago province of Cuba; Preparation of an alternative program of psychological improvement for Karate-Do coaches of the province Santiago de Cuba (Bravo, 2008; Cañizares Hernández, 2004; Cushion et al., 2003).

MATERIALS AND METHODS

The population in the research consists of 12 basic coaches of the Karate-Do of the province Santiago de Cuba, coinciding with the research sample. The source of information was made up of 2 sports executives; the commissioner and the methodologist and those responsible for overcoming the INDER in the province of Santiago. The analytical-synthetic is taken into account because it allowed the understanding and explanation of the main trends in the process of psychological improvement for trainers, being very useful for the analysis of the sources consulted (Diaz, 2009; Donevarría, 2008; Dopico, 2011). Of important value, the historical-logical one is because it allowed the establishment of logical relationships, starting from theoretical and methodological precepts that underpin the process of psychological improvement, which led to the understanding of historical and social conditions that characterize the process.

The use of the deductive inductive to address the process of psychological improvement in sport is also weighed, allowing to establish the relationships between the selected activities. Also, the systemic and structural approach is used throughout the research, for the analysis of the results of the diagnosis of the current state of the psychological improvement process for Karate-Do base coaches and the development of the program Alternative (Garbán, 2012; García Ucha, 2004; Gilbert & Trudel, 2001). The documentary analysis was important to analyze the normative documents that govern the process of psychological improvement for basic Coaches of Karate-Do in Cuba and the province of Santiago de Cuba. Empirical methods, the poll was applied: Surveys were prepared and applied to the coaches and managers of the sport in the province of Santiaguera, to know the ways of psychological improvement, which were used at the time of the research. Interview: The perpetrators were interviewed at INDER, who addressed important elements for the research (Godo, 2014; Guzman, 2010; Irwin et al., 2004).

STATISTICAL-MATHEMATICAL METHODS

Descriptive statistics: From the analysis of the results obtained in the diagnosis, the program of psychological improvement could be developed, using the percentage calculation. Various requirements were taken into account for the implementation of the plan:

- 1) Participants sit in a circle, as close as possible to each other. The team's coach is also included here. This approach is based on the achievement of favorable atmospheres and the decrease in psychological distance between the members, generated by the physical closeness and visibility of each other during the sessions.
- 2) Emotionally engage each subject with participation in sessions based on awareness of the issues that affect team performance and are necessary to eliminate to achieve an understanding of psychological preparation.
- 3) Check the achievement of the objectives and targets proposed in the previous sessions.
- 4) Perform the corresponding feedback in each session.
- 5) Check the results of the actions.

RESULTS AND DISCUSSIONS

It is noted the need to improve the evaluation of professional performance, the importance of taking into account the training process when conducting training sessions, which allow aligning the behavior of the practitioner of martial arts. El proceso de superación se realiza en su mayoría solamente referido al elemento técnico, donde se aísla el proceso de instrucción y educación. The guiding principles of Karate-Do created by its founder Funakoshi (1938) are not used. The base coach is not provided with a tool to support him in training sessions so that he can guide and measure the behavior inside and outside the Dojo of practitioners.

In technical programmers, no training instruments, in measurable and evaluable ways, have been incorporated. It is considered the need to expose it to expert criteria, as another element of validation of what has been studied, finally to carry out its implementation and ways of evaluating its results (Jimenez, 2012; Lemyre et al., 2007). The diagnosis of the current situation reveals the inadequacies that coaches possess in the training process of the province of Santiago de Cuba, as required by the new situations that are presented today socially. With the application of an alternative of psychological improvement, the training process of the trainers is perfected (Nunez, 2001; Valdés, 2012).

Overcoming consists in some cases, only in the explanation, teaching, correction of technical elements, and updating regarding the new arbitration rules, without paying much attention to the training part or as the martial (spiritual) artists call it, so it is necessary to provide them with the psychological component for better results with their athletes. Table 1 shows the evaluation system.

Table 1 Evaluation system

No	Theme Name	C	CP	S	V	And	TT
1	Sport in the value education of the new generations	5	4	1	1	-	11
2	Dosage of training loads	7	4	1	-	1	13
3	The psychological preparation of coaches and athletes	8	3	2	-	1	14
4	Theoretical and methodological foundations of <i>Karate-Do</i> training	10	7	2	2	1	22
Total		30	18	6	3	3	60

Legend: C. Conferences. CP-Practical Classes. Seminars. V-Videos. E-Evaluations. TT-Total

Item 4: Theoretical and methodological foundations of Karate-Do training

Objective: Characterize the theoretical contents of Karate-Do training to exercise professionally the role of technical director. Contents of the theme Karate-Do: métodos and means for the work of skills, invading of theoretical preparation with the components of the training process, dprofessional, individual, group and equipment, and personalized, training, integral training, theauxiliary means for the development and perfection of training, habilidades Selection of methods and means in the work of skills: determining the relationship of theoretical preparation with process components, to the application of professional management with quality, to the application of integral training, identification of the auxiliary means for improvement of the process, to the simulation of the elements of personalized training (Selby et al., 2010; Lee et al., 2008; Laukkanen et al., 2009).

Overcoming program for Karate-Do base coaches in Santiago de Cuba province

Objective: To raise the level of knowledge of the basic coaches of Karate-Do of the province Santiago de Cuba.

Skills system: (a) application of the components of the sports training process with the correct execution of the professional management, characterization of the biological, physiological, and biochemical elements that justify the burdens and principles of sports training, determination of psychological characteristics, the requirements of the physical, technical and tactical preparation of Karate-Do, applying the techniques for research in the sport, and axiological and psycho-pedagogical component in the education of moral values since the sports training of Karate-Do, recommendations for implementation. The recommendations for the implementation of the alternative and guidance for its application in other provinces and martial arts are then related as premises for the implementation of the alternative of overcoming the training of the coaches of the Karate-Do: motivation of martial sports coaches towards the incorporation of the organization of the content blocks related to training preparation, considering the importance and permanent topicality, for the achievement of the training a coach at the comprehensive base level (Cosh & Tully, 2014; Healy, 2012).

The new conditions of Cuban society bring with it the beginning of a process of transformations in the preparation of sports professionals, transmitting to its student's education through the instructional process as a fundamental tool for their coexistence in complex societies, so it is indefinable to perfect the training model of coaches, to eliminate deficiencies that manifest themselves in the process of formative management of coaches at the base level of Karate-Do, specifically.

CONCLUSION

The analysis of historical trends in the training preparation of coaches at the base level of Karate-Do in Santiago de Cuba, allowed the establishment of three stages, closely linked to the formative process in their state of preparation he has traveled since his introduction in the late 1960s to the present day. Also, it made it possible to corroborate the educational nature of the training and the importance of the social impact that the educational process has in this sport-martial art.

- 1) From the systematization of the theoretical stylists that authors address about the process of overcoming sport in Cuba, it is necessary to constantly link sports technicians due to the scientific and technological innovations that happen at the level World.
- 2) From the diagnosis made to Karate-Do coaches in the Santiaguera province, it was found that methodological preparations that were considered part of the psychological improvement were not in correspondence with their needs; the sport has not previously presented a program to overcome at this level.
- 3) The psychological improvement program was developed, responding to the needs of the coaches, presenting four topics each with their contents, skills to develop, the evaluation system and the bibliography that guarantees the updating of every theme.

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