

## **Instructional Modes and Manipulative Skills of Pre-Primary School Children in Ibadan, Nigeria**

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### **Abstract**

*Manipulative skills are needed to equip children with competence in different areas, especially for learning and living. They form a solid foundation for children's comprehensive development in the early years. Activities such as grasping, cutting, producing, designing, building, assembling, and folding, among others, are necessary for children to develop these skills. Evidence revealed that these activities are missing in the pre-primary school classrooms because teachers are not intentional about the development of the skills. Most of the time, the learning strategy adopted for teaching and learning activities does not give room for such activities. Hence, this study investigated the impact of instructional modes, specifically video-assisted and illustration-based strategies, on the development of manipulative skills among preprimary school children in Ibadan South-West Local Government Area. The study selected six public and private pre-primary schools through purposive random sampling. Participants, comprising 61 children, were assigned to experimental (VB and DB) and control groups over six weeks. Two research questions were answered, and seven hypotheses were tested. A pre-test-post-test control group quasi-experimental design was used, and data were analysed with Analysis of Covariance (ANCOVA). Results showed a significant effect of treatment on manipulative skills ( $F(2,48) = 33.71$ ;  $p < 0.05$ ; Partial  $\eta^2 = 0.58$ ), and a significant main effect of school type ( $F(1,48) = 4.85$ ;  $p < 0.05$ ; Partial  $\eta^2 = 0.09$ ) on the acquisition of manipulative skills. The study highlights the effectiveness of innovative instructional modes in enhancing manipulative skills and recommends their adoption in early childhood education settings.*

**Keywords:** *Instructional modes, manipulative skills, pre-primary school children.*

## **Introduction**

During the early years, especially at the infant stage, children do naturally engage in activities such as grasping, releasing. As they grow, they graduate to more complex activities which include throwing, catching, hitting, pulling, pushing, kicking, dragging, assembling, threading, building, among others. These activities are referred to as manipulative skills. Manipulative skills are a major area of development which contributes immensely to children's holistic development. The skills cover physical activities which involve the use of legs, hands and fingers and sometimes the movement of the whole body. They serve as building blocks for a wide range of academic, daily living, and recreational activities. It helps to strengthen the muscles of the hands and enhance eye-hand coordination. Beyond physical benefits, manipulative skills contribute significantly to children's cognitive development, problem-solving abilities, and creative expression.

Manipulation skills, as described by Nohj (2014), involved the handling and controlling of objects with precision and coordination. It involves any motor skill that usually involves an object. Ardha, Yang, Adhe, Khory, Harianto, and Putra (2017) also describe manipulative skills as those skills needed for the control of an object such as a ball, beanbag, hoop, rope, ribbon and frisbee. These skills cover a wide range of activities such as pattern creation, object manipulation, and construction activities that foster spatial awareness, attention to detail, planning abilities, cutting with scissors, drawing, moulding clay, buttoning clothes, and assembling objects. The skills are a critical component of motor skills, which include gross and fine motor development in early childhood.

Fine motor skills have long been recognised as an essential part of manipulative skills. This skill encompasses the control and coordination of the distal musculature of the hands and fingers (Gidion, 2020). Fine motor skills are thought to be essential for early learning. Regular daily activities such as colouring, copying, cutting, and drawing, dressing, feeding, and playing involve fine motor skills (Pitchford et. al., 2016; Gaul & Issartel, 2016). Fine motor skills activities involve manual dexterity and often require coordinating the movement of the hands and fingers with the eyes, which is known as hand-eye coordination. Components of fine motor skills include being able to grip and manipulate objects, use both hands for a task, and use

just the thumb and one finger to pick something up rather than the whole hand.

It has been reported that, as children advance in age, the manipulative activities they engage in are limited to writing and sometimes colouring. Some early childhood education classrooms fail to deliver teaching and learning activities in ways that involve physical movement. Many children suffer from a lack of daily interactive moments because their daily routines follow tightly scheduled timetables created by educators (Nyland, 2009; Smith, 2002). Fadzil and Saat (2017) assert that manipulative skills are generally given the least attention in the course of academic instruction. There is also limited interaction with objects or educational resources that can encourage children to engage in manipulative activities (Majebi et al., 2020). These might hurt children's holistic development, especially in the acquisition of skills needed for later years.

Although some manipulative skills are naturally acquired, there are certain skills that require practice and instruction for children to gain mastery of them. Ardha et al. (2017) express that manipulative skills such as passing, dribbling, and kicking do not develop automatically; opportunities for instruction and practice are to be provided for children to acquire them. However, Hidayah and Rohaida (2017) reported that manipulative skills are given less attention in the course of academic instruction.

An increase in the need to give more attention to the development of manipulative skills, especially the fine motor skills in children, by scholars is due to its connection to success in other areas of learning, which have been established in the literature. Akin (2019) and Becker et al (2014) connected the development of fine motor skills with legible handwriting. Lindel et al. (2013) affirm that fine motor skills play an important role in sustaining people's daily lives. Cameron et al. (2012) and Dinehart and Manfra (2013) attested to the fact that fine motor skills do predict later academic achievement, especially in reading, mathematics, and higher academic achievement. Also, Pitchford et. al (2016) confirm that fine motor skills may underlie the acquisition of quantitative and spatial concepts. In the same vein, Gaul and Issartel (2016) assert that poor fine motor skills can cause increased anxiety, distress in academic achievement and poor self-esteem.

Given the foundational roles that manipulative skills play in the overall development of young children, conscious efforts are required to get children engaged in activities that might improve their fine motor skills. There is a

pressing need for early childhood educators to adopt teaching strategies that actively promote these skills within the learning environment.

Research underscores the importance of structured interventions to enhance manipulative skills during the pre-primary years, a period marked by rapid neurological and physical development. Setyawan, Susanto, Sulistianoro and Setiawan (2024) adopted game activities to develop manipulative motion skills in elementary school students; Pereira, Souza de Paiva Palhares, and Pelizaro (2022) exposed children from ages 4 to 6 years old to exploring sensorial cubes to determine the manipulative actions and games of children. Akin (2019) investigated the effect of physical education intervention on children's fine motor skills; Purnomo, Tomoliyus and Burhaein (2018) used learning activities, playing a ball on a goal, to improve manipulative skills for lower-class students. Ardha et al. (2017) adopted soccer as part of physical education to develop manipulative skills in age six kindergarten children. The aforementioned studies and many others that were not reviewed have contributed to the development of manipulative skills in children across the globe. However, providing materials and engaging children in activities such as cutting, pasting, sticking and producing materials were not the focus of the studies in developing manipulative skills in children. Since the use of fine motor skills occupies a significant part of manipulative skills, and children learn from observation, the need arises to adopt instructional modes that will guide children about what they can do with their fingers on materials provided while learning.

Instructional modes are various methods, strategies and approaches employed by educators to deliver content to learners in order to achieve meaningful and impactful learning. They are adopted to address diverse learners, contextual realities and teaching objectives. The modes are many; however, the video-assisted and illustration-based learning are considered in this study for their ability to provide clear, structured, and engaging guidance on exposing children to real-life learning.

Video-assisted learning represents a pedagogical innovation that leverages the multimedia capacity of video content to enrich the teaching and learning process, particularly in early childhood classrooms. It offers children dynamic, real-world visuals that promote engagement and comprehension through contextual representation (Kay et al., 2018). Video is the technology of electronically capturing, recording, storing, transmitting and reconstructing a sequence of images representing scenes in motion (Balasubramanian et al., 2018). Videos are particularly effective in early learning settings as they can

simulate experiences, illustrate abstract ideas, and demonstrate sequential tasks that young children may struggle to grasp through verbal explanations alone (Guo et al., 2014). It is considered an effective method of education that links theory with practice (Devi et al., 2019).

This approach aligns with the cognitive theory of multimedia learning, which posits that learners better understand content when it is delivered through a combination of visual and auditory channels (Mayer, 2020). For preschoolers, whose cognitive and sensory systems are still developing, videos serve as a bridge between concrete experiences and symbolic understanding. They allow repeated exposure to modelled behaviours or concepts, which is essential for skill acquisition and retention in the early years (Brame, 2015).

In practical terms, video-assisted instruction can present learning scenarios that might be logistically challenging to demonstrate live in the classroom. For example, the step-by-step process of constructing an object or manipulating a tool can be paused, replayed, and discussed, facilitating not just passive watching, but interactive learning. Kamal, Ibrahim, Amin, and Ahmed (2021) affirm that the video teaching method improves learning because it uses sight, sound, and motion to present simple clarification of complex topics and issues. Also, it can present information in a manner that verbal descriptions or talking alone cannot convey and act as a bridge to educational barriers.

The potentials embedded in video-assisted teaching, as revealed in literature, attracted the current study to adopt it in developing manipulative skills, especially the fine motor coordination domains, which are crucial in pre-primary education. Hence, the adoption of video-assisted instruction to examine how it can support the development of manipulative skills among young learners in Nigerian classrooms.

Illustration-based learning strategy, which was the second strategy adopted in this study, is rooted in the constructivist approach to teaching. Aditi (2022) describes an illustration as a decoration, interpretation or visual explanation of a text, concept or process, designed for integration in print and digital published media, such as posters, flyers, magazines, books, teaching materials, animations, video games and films. According to Luo and Lin (2017), illustration is always used as an example to make the written text or the utterance more straightforward. It is used to convey more information by means of a chart, photo, map and so forth. Alley (1994) puts illustrations into

six major types: photographs, drawings or line art, realia or authentic documents from the target culture, graphs and diagrams, maps and reproductions of works of art.

Hence, the illustration-based learning strategy, in this context, is described as the adoption of visual presentation and description of objects to help the children understand the procedure involved in the production process of such objects. It gives learners the opportunity to build understanding by observing guided physical representations or modelled actions. This strategy leverages visual, tactile, and procedural cues to help learners internalise step-by-step processes. Illustration, according to Sultangubieva and Adiletova (2024), increases students' engagement and understanding in teaching and learning activities. Unlike a conventional strategy that may place the teacher at the centre, illustration-based instruction often emphasises learner interaction with real objects, manipulatives, and pictorial steps to reinforce skill development, particularly manipulative skills in early learners.

Research has shown that the use of illustrations improves comprehension, vocabulary acquisition, information retention and overall student engagement (Cheng & Mix, 2014; Sultangubieva & Adiletova, 2024). Illustrations can clarify abstract concepts, break complex materials into manageable chunks, and spark interest and critical thinking, leading to deeper understanding and knowledge creation. It can help learners ask questions about what they see (Sultangubieva & Adiletova, 2024).

Illustration-based strategy allows children to visualise concepts through tangible representations, such as a sample of what to do and materials needed to manipulate. It helps break down abstract or complex tasks into manageable visual segments, which children can imitate and gradually master. Sultangubieva and Adiletova (2024) found that using illustration in English lessons is beneficial for students of all ages. Luo and Lin (2017) claim that employment of illustrations in the EFL classroom can prompt learners' understanding as well as memory, and hence facilitate students' learning ability in an effective way.

The relevance of illustration-based instruction for skill acquisition is underscored by its emphasis on "learning by seeing and doing." Unlike verbal explanations or screen-based visuals, it provides hands-on support that resonates with young learners' developmental needs. It promotes sequencing, spatial awareness, and the coordination required for tasks such as folding, sorting, stacking, and manipulating learning tools.

While much of the existing literature has focused on using illustration for language, arts, reading and science instruction (Sultangubieva & Adiletova, 2024; Alali & Al-Barakat, 2023; Luo & Lin, 2017; Raiyn, 2016; Hannus & Hyona, 1999), limited studies have examined its role in nurturing children's manipulative skill, a gap this study examined.

Gender and school type were also considered as factors that can influence the development of manipulative skills in pre-primary school children. The findings of past studies on gender-related variables regarding the acquisition of specific skills are also worth considering in research of this nature. Ardha et al. (2017) reported that males significantly performed better in the post-test of passing, dribbling and shooting than females after exposing them to physical education to develop manipulative skills in soccer. Ogunmade, Saibu and Ogunmade (2024), in a study carried out on the impact of laboratory practical approach on students' manipulative skills, reported that a statistically significant difference was not found for gender in manipulative skills and achievement of students in science. The analyses of the study carried out by Kersey, Braham, Csumitta, Libertus, and Cantlon (2018) consistently revealed that boys and girls do not differ in early quantitative and mathematical ability. Obijiofor, Ugwele, and Onyenwe (2024) reported that gender moderated the relationship between play-based learning and literacy skill, though not the connection between literacy interest and skill. Hence, the consideration of gender in this study.

School type, public and private, was also considered significant when assessing children's performance in skills development. Majeji and Oduolowu (2021) and Umar and Samuel (2019) described school type in terms of school ownership. They include schools owned by the government (public schools) and those owned by an individual/religious organisation (private schools). Better facilities, smaller class sizes and more consistent academic outcomes were ascribed to private schools. Different scholars have reported that children or learners from the privately owned schools do perform better than their counterparts from public schools. One of the main functions of the school, whether public or private, is to play a very crucial role in imparting knowledge, skills, attitudes and values to children to have all-around development (Majeji & Oduolowu, 2021). Given to this vital role of the school, this study examined the advantages of children's type of school in terms of manipulative skills acquisition.

This study is anchored in David Kolb's experiential learning theory, which posits that meaningful learning arises from the transformation of lived experience into actionable Knowledge. Kolb's experiential learning theory underscores the importance of engaging learners in active participation, reflection, and practice (Kolb, 1984). Making it particularly relevant for skill-based activities, such as the development of manipulative abilities. According to the theory, learning is not merely about information but about constructing understanding. As such, interventions that integrate experiential and visual methods are highly recommended for fostering manipulative skills effectively. The theory states that "Learning is the process whereby knowledge is created through the transformation of experience". Kolb states that learning involves the acquisition of abstract concepts that can be applied flexibly in a range of situations. In Kolb's theory, the impetus for the development of new concepts is provided by new experiences, "beginning with experience that is processed through an intentional learning format and transformed into a workable, useful knowledge".

### ***Research Questions***

The following research questions guided the study

- i) What is the main gain in Fine-motor skills exposed to the Video-assisted learning Strategy?
- ii) What is the main gain in Fine-motor skills exposed to the Illustration learning Strategy?

### ***Hypotheses***

The following null hypotheses were tested in this study at a 0.05 level of significance.

- H01:** There is no significant main effect of treatment on children's fine motor skills development
- H02:** There is no significant main effect of gender on children's fine motor skills development
- H03:** There is no significant main effect of school type on children's fine motor skills development.
- H04:** There is no significant interaction effect of treatment and gender on children's and fine motor skills development.
- H05:** There is no significant interaction effect of treatment and school type on children's fine motor skills development.
- H06:** There is no significant interaction effect of school type and gender on children's fine motor skills development.
- H07:** There is no significant interaction effect of treatment, school type and gender on children's fine motor skills development.



## **Methodology**

The study involved six pre-primary schools randomly selected from urban and semi-urban areas of Ibadan South-West Local Government Area of Oyo State. The schools were assigned to the experimental groups of VB and DB, as well as the control group. 61 pre-primary school children participated in the study, which lasted a period of 6 weeks. Two self-developed research instruments were used to collect data for this study.

The content taught during the experiment was selected under the theme Pre-Basic Science/Pre-Basic Technology, which was adapted from the One-Year Pre-Primary School Education Curriculum in Nigeria. The activities done include:

- i) Make simple objects (Human Skeleton craft)
- ii) Experimentation (Magnifying glass)
- iii) Designing skills (Paper Bag)

This study employed a quasi-experimental design featuring a pretest, posttest, and control group structure. Participants were divided into three groups: two experimental and one control group. Each experimental group was assigned to video-assisted and illustration-based strategies, respectively. Children in the video-assisted strategy group viewed video clips of teachings on the step-by-step descriptions of the steps involved in manipulative activities, while those in the illustration strategy group observed live, step-by-step graphic representations of the materials to be created. A pre-test was administered to evaluate the children's level of manipulation skills development prior to the intervention. The intervention activities were carefully designed to suit the developmental level of five-year-old children. The intervention included constructing a human skeleton using cotton buds, conducting a basic science experiment by creating a magnifying glass from recycled plastic bottles and engaging in simple design tasks such as crafting bags from cardboard or stiff paper. After the intervention, a posttest was conducted to measure the impact of the instructional strategies on the development of manipulative skills. This design allowed for the comparison of learning outcomes across the three groups and provided insight into the effectiveness of each teaching approach.

## **Results**

### ***Answering the Research Questions***

**RQ1:** What is the mean gain in Manipulative skills of children exposed to a video-based learning strategy?

**Table 1: Mean Gain in Manipulative Skills Development**

Strategy	Manipulative Skills			
	Pre-mean	Pre-mean	Post- mean	Mean gain
Illustration	25.889 (4.458)	21.889 (3.324)	36.667 (6.954)	14.778
Video-Assisted	23.611 (4.104)	21.722 (5.432)	36.500 (7.808)	14.722

*Note: Standard deviation in parentheses*

**RQ1:** What is the mean gain in fine-motor skills of children exposed to a video-assisted learning strategy?

Table 4.1 shows that the post-motor skills mean score (36.67) is higher than the pre-motor skills mean score (21.89). The mean gain is 14.78.

**RQ2:** What is the mean gain in fine-motor skills of children exposed to an illustration-based learning strategy?

Table 4.1 shows that the post-motor skills mean score (36.50) of learners exposed to video-based learning is higher than the pre-motor skills mean score (21.72). The mean gain is 14.72.

## Section 2: Testing the Null Hypotheses

**H<sub>01a</sub>:** There is no significant main effect of treatment on children's fine-motor skills development.

**Table 2: Summary of Analysis of Covariance on Manipulative Skills Tests of Between-Subjects Effects**

Dependent Variable: Post-Motor Skill									
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared			
Corrected Model	8472.623 <sup>a</sup>	12	706.052	24.169	.000	.858			
Intercept	972.070	1	972.070	33.275	.000	.409			
PreMotorskl	29.885	1	29.885	1.023	.317	.021			
Treatment	1969.603	2	984.802	33.711	.000	.584			
Gender	49.165	1	49.165	1.683	.201	.034			
Schltyp	141.618	1	141.618	4.848	.033	.092			
treatment * gender	52.526	2	26.263	.899	.414	.036			
treatment * schltyp	163.126	2	81.563	2.792	.071	.104			
gender * schltyp	46.831	1	46.831	1.603	.212	.032			
treatment * gender * schltyp	19.078	2	9.539	.327	.723	.013			
Error	1402.229	48	29.213						
Total	54506.000	61							
Corrected Total	9874.852	60							

a. R Squared = .858 (Adjusted R Squared = .822)

**Table 3: Estimated Marginal Means on Manipulative Skills**

Variable	Mean	Std.D
Intercept		
Pre-Manipulation	17.853	-
Post Manipulation	28.832	.727
Treatment		
Control	14.626	1.694
Illustration	35.819	1.602
Video-assisted	36.052	1.532
Gender		
Male	29.770	1.057
Female	27.895	.991
School Type		
Public	30.436	1.063
Private	27.229	.993

**Table 4: Summary of Scheffe's Post-hoc Analysis on Manipulative Skills**

	Control	Demon.	Video
Control		*	*
illustr.	*		
Video-Assisted	*		

Table 1 shows a significant main effect of treatment (video-assisted and illustration-based strategies) on manipulative skills of the pre-primary children ( $F_{(2,48)} = 33.71$ ;  $p < 0.05$ ; Partial  $\eta^2 = 0.58$ ). Estimated marginal mean scores show that children exposed to the video-assisted strategy achieved the highest mean score ( $M = 36.05$ ), followed closely by those exposed to illustration ( $M = 35.82$ ), while those in the control group recorded the lowest (14.63). To know the source of the significant effect, Table 4 presents Scheffe's post hoc pairwise comparison. However, there was no significant difference between the video-assisted and illustration-based strategies.

Table 3 revealed that there was no significant main effect of gender,  $F_{(1,48)} = 1.68$ ;  $p > 0.05$ ; Partial  $\eta^2 = 0.03$ , indicating that boys and girls performed comparably on manipulative tasks. A significant main effect of school type on fine-motor skills development of the pre-primary children was found ( $F_{(1,48)} = 4.85$ ;  $p < 0.05$ ; Partial  $\eta^2 = 0.09$ ), with pre-primary children in the public schools outperformed (30.44) their counterparts in private schools (27.23). None of the interaction effects were statistically significant. These findings suggest that while the instructional strategy and school type significantly influenced manipulative skill acquisition, gender and interaction effects did not.

## **Discussion**

The first finding from the study shows that there is a significant main effect of treatment (video-assisted and illustration-based strategies) on the manipulative skills of the pupils. It shows that pupils exposed to the video-assisted strategy had the highest mean score, followed by those exposed to the illustration-based strategy, while those in the control group had the lowest. A study of O'loughlin et al. (2012) supported this finding by indicating that using digital video for feedback and assessment in Physical Education has shown to enhance children's motivation and improve their skill performance. Yousef, Chatti and Schroeder (2014) also submitted that video-based learning is a rich and powerful model used in TEL to improve learning outcomes and learners' satisfaction.

Although the video-assisted learning strategy has a significant effect on the manipulation of pre-primary school children, there is no significant difference between video-assisted and illustration-based strategies. This implies that the illustration-based strategy was equally good in enhancing the two skills (creativity and manipulative) measured in this study. The studies carried out by Sari (2024), Ehiwario, Aghamie, and Azagbaekwue (2019), Omwirhiren and Khalil (2016), Okoko (2014), Daluba (2013), and Ameh and Dantani (2012) revealed the potential in the illustration strategy to yield high academic achievement in different subject areas.

The study also revealed that there is no significant main effect of gender on the development of manipulative skills of the children. This implies that the two strategies employed in this study were more effective than gender. Both males and females can acquire manipulative skills if video-assisted and illustration-based strategies are engaged to teach them. This finding corroborates the findings of the study by Pahlevanian and Ahmadizadeh (2014), which showed that at the preschool stage, girls had higher performance compared to boys in fine motor skills, and boys had significantly higher performance compared to girls in gross motor skills. The findings of Ameh and Dantani (2012), Omwirhiren and Khalil (2016), and Ehiwario, Aghamie, and Azagbaekwue (2019) also reported no significant difference in the post-test mean achievement score between males and females. The review also highlights that girls are outperforming not only at the school and college levels, but also in higher education. However, the conclusion is subject to further verification from experts.

The study revealed a significant main effect of school type on manipulative skills (fine motor skills) among the pre-primary school children. The children

in the public schools performed better than their counterparts in private schools in the mean score related to manipulative skills. This could be as a result of instructional expectation and classroom structure; the children in public schools appeared to have less academic pressure, which allowed them more time to engage in experimental activity. The finding of this study was contrary to what Ogunsipe and Oladipo (2019) found, that private school learners had significantly higher scores in English literacy assessments compared to their public-school counterparts. While Adeyemi and Nwachukwu (2018) reported that private schools' pupils significantly outperformed public school pupils in standardised numeracy assessment. However, Emeka and Ajayi (2022) found that public preschool attendees showed higher scores on peer interaction and self-regulation indices. Adekola & Amusan (2022) demonstrated that differences in learning outcomes between public and private varied significantly depending on the domain or nature of the skill being assessed, as well as other related factors such as teacher quality, curriculum flexibility, among others.

## **Conclusion**

Video-assisted and illustration-based learning strategies are effective in engaging pre-primary school children in manipulative skills. Although a video-assisted strategy showed a slight edge, this suggests that either of the two can be employed to engage children in manipulative activities, depending on the materials made available and the learning goals to be achieved. Gender was not a viable factor in learning creative concepts; this implies that equal opportunities should be provided to both genders to undertake learning tasks. Studies have proven beyond all reasonable doubt that gender is of no significant influence in developing manipulation skills. The performance of public schools' pre-primary school children can improve if appropriate strategies are employed to engage them in teaching and learning activities.

## **Recommendations**

Based on the findings of the study, the following recommendations are made:

- i) Video-assisted and illustration-based learning strategies should be considered in teaching and learning activities, especially in enhancing manipulative skills.
- ii) Learning or educational learning materials should be available for the preschool children and their teachers to achieve effective learning.
- iii) The pre-school timetable should be reorganised in such a way as to give room for manipulative activity.

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## Manuscript Preparation - JIPE

### ***Page format***

Page set-up of the manuscripts should be on A4 or 8.5" x 11 "paper, typed double-spaced (24-26 lines per page), with margins of top 25mm, bottom 25mm left 40mm and right 20mm.

### ***Font***

The font size of main text shall be 12 in Times New Roman

Manuscripts should be arranged in the order of: title page, abstract (structured summary) including up to five keywords, main text, acknowledgements (if applicable), references, tables, and figure.

### **Title Page**

This page must include the following information:

- The title of the manuscript which should be concise, specific, informative, and clear.
- Should be in bold, using font 14.
- The names (spelled out in full) of the author(s) of the manuscript including their corresponding affiliation(s) should be indicated immediately below the title.
- A complete mailing address (including the e-mail) of the person to whom all correspondence regarding the manuscript should be addressed and must also be indicated.

### **Abstract**

The first page following the title page should contain an abstract. Abstract should contain up to 250 words mainly of the object and main findings of the paper. Three to five keywords representing concepts of the paper may be written at the end of the abstract. The Abstract shall be in *italics*.

### **Main Text**

In the main text:

**Introduction:** Should describe the objective of the reported work and provide relevant background information.

**Methodology** (Where the study/research dictates): This part should identify the paradigms/approach, population, area of study, procedures employed and any other relevant input to the realization of the study.

**Findings:** This section should explain all the important findings and provide information about the reliability of the results. Here, the use

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of tables and figures is allowed, but the use of text to emphasize important points is encouraged.

**Discussion:** It should describe the implications of the findings and any conclusions based on the findings. Abbreviations in the body of the paper should be used after having been initially explained. If statistical analysis is applicable, it is important that the procedure is carried out following appropriate methods.

### ***Tables and Figures***

Tables and figures should be as close as possible to the text explaining the concept. Tables should be numbered in the order in which they are mentioned in the text. A Table caption must be presented in upper case at the top and Figure caption should be typed in bold immediately below the Figure. Explain in footnotes all non-standard abbreviations used in each table.

### ***Pagination***

The page numbers should appear at the Centre of the bottom edge of the page.

### **Reference style**

All references should adhere to the latest version of APA format.

### **Footnotes**

They should be kept to a minimum. Two or more consecutive references to the same source should, where possible, be grouped in the same note; the reader should be able to follow the article without referring to the notes.