

## INNOVATIVE TECHNIQUES IN AGRICULTURAL EDUCATION INSTRUCTIONAL DELIVERY FOR MATCHING SKILLS DEMAND AND SUPPLY IN NIGERIA.

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### Abstract

*Mismatch of skills demand and supply has been a problem that has affected many industries across the globe. This paper focused on improved and appropriate instructional delivery techniques in agricultural education that can be adopted in order to make instructional delivery in the school and the practical work in the field or industry to blend so as to produce an effective workforce in agriculture. Different types of mismatch have been explained in this paper with their causes and negative effects. The paper also highlights some innovative techniques such as use of ICTs, massive open online courses, mobile education and Training, game and simulation, self-instructional package, humor teaching method, flipped classroom method and supervised Agricultural Experience programme that can be implemented by teachers to adequately prepare students with the requisite skills in different areas of agriculture to match skills demand and supply. The paper concludes that Agricultural Educational teachers should use innovative instructional delivery techniques that will fully equip potential workers with the necessary skills to make them proficient and perform effectively in their various agricultural jobs. It is recommended that both institutions and teachers should enforce the inclusion of ICTs in instructional delivery, and the teaching of more practical skills in agriculture.*

**Key Words:** *Innovative techniques, Agricultural education, instructional delivery, Skills match, Skills mismatch, Skills demand and supply*

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## Introduction

Instructional package is as good as the technique of delivery. An appropriate instructional delivery technique can yield very positive results which can be seen in the academic or work performance of the recipients of the instruction which are the students. On the other hand, a good instructional package can be marred by an inappropriate delivery technique such that the instruction being passed may not get the right results it needs, thus the needed response it deserves will be lost (Karami, 2012). The right instructional delivery technique is not only necessary but essential for matching skills demand and supply. This calls for understanding of labour market needs and the right skills to match those needs. In order to achieve this, appropriate innovative techniques in Agricultural Education instructional delivery must be applied by the teachers or instructors.

Effective instructional delivery techniques in Agricultural Education will go a long way in inculcating in the learners or students the right knowledge, values, attitude and work skills in agricultural fields which make them relevant in the society in which they find themselves. This will invariably reduce unemployment, skill mismatch and increase agricultural productivity. Agricultural education helps to provide job skills which are learnt in the classroom and transformed from theory to practice. It involves the application of the principles and theories taught in the classroom into real practical experience in the world of works. Agricultural education also provides instruction that will engage students in the globalization of agriculture as the solution for environmental demands, food security and safety, technology, natural resource protection and urbanization; training of future entrepreneurs and acquiring soft skills that employers seek (Aneke, 2015). It also brings about opportunities for students to engage in service-learning in real world situations. Jordan and Taylor (2014) suggested that at the operational level of Agricultural Education and Training (AET), there is need for the adoption of pedagogies that cultivate an innovative and entrepreneurial mentality in students such as

participatory and experiential learning methods; debate, discussion and critical thinking; interdisciplinary team work and problem solving and opportunity recognition and treatment of ambiguity and uncertainty. Poor Agricultural Education instructional delivery in the country leads to long-term skills mismatch resulting to structural unemployment weakened economic growth and lower productivity in both agricultural and industrial sector (World Economic Forum, 2014).

In agricultural education, instructional delivery is therefore expected to be geared towards producing individuals with the relevant skills and competency that will make them able to work effectively in

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productive agricultural endeavors and establishments. According to Alabi (2011), vocational agriculture is the training in broad fields of agriculture in order to provide knowledge and skills which will enable the individual make a living. It is a skill acquisition training program for youths to be selfemployed and

self-reliant in agricultural production for empowerment. It involves the training of learners to enhance their ability to competently manipulate agricultural activities in areas such as production, processing, packaging and marketing so that they can become employed in government or private sector or be self-reliant (Aneke, 2015). Agriculture being a vocational course entails education that will provide students with the competencies to make them aware of and prepared for the world of work. It is a dynamic and rapidly changing industry due to the ever-increasing technological advancement. Being dynamic, instructional delivery also has to be reviewed from time to time in order to conform to current needs (Yalams, 2017).

Instructional techniques have been described by Heinrich, Molende and Russel (2003) as procedures of instruction, selected to assist the learner achieve the objectives of learning. This means that the instructional method could be a procedure adopted by the teacher that will make students acquire knowledge, attitudes and skills in agricultural production. Osinem (2008) categorized instructional methods into field-related and non-field related instructional methods. The field-related instruction could be carried out within or outside the school setting. This could be organized trip or visit to a place of interest, laboratory experiment, workshop, demonstration of concepts among other outdoor methods. Learners are actively involved in this method of teaching and hence skill acquisition is enhanced. Furthermore, Osinem (2008) presented the following agricultural instructional methods which teachers could use to enhance learning:

- (i) Collaborative/cooperative learning: This is a teaching strategy in which students work together in small groups to accomplish a common learning goal. It requires careful planning and execution while the teacher guides them as they work together.
- (ii) Mobile learning: In this method, the students are exposed to the use of information and communication technology (ICT) gadgets to obtain information as instructed by the teacher. The use of ICT can help agricultural science students develop research skills as well as enable them know what is happening in their areas of study in other parts of the world.
- (iii) Game and Simulation: In this method, students are encouraged to solve real life problem in a safe environment using interactive tools such as internet.
- (iv) Field trip: Field trip is an organized visit to a place outside the classroom to achieve an instructional objective.
- (v) Demonstration: This is a method used by teachers to impart fundamental skills and practice in the learners within a very short time. It is a method that is very effective in teaching students manipulative skills in order to develop learners' understanding. It could be carried out individually or in groups. It can as well be carried out in the class. Merlot (2015) noted other field methods of instruction to include inquiry guided learning, interdisciplinary teaching, community learning, teaching with cases, giving assignment to students, giving projects to students, team-based learning, exhibition of agricultural produce, workshop practice, task instruction sheets.

The non-field instructional methods are mainly those methods of instruction which are more of theories. The methods are described by Osinem (2008) as classroom based strategies of teaching. The

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methods include discussion, problem solving, humor, team based teaching, role play, use of textbooks and handouts among others.

**Discussion:** This is a forum for open-ended collaborative exchange of ideas among a teacher and the learners or among students for the main aim of improving the learners' thinking, knowledge, learning, understanding and ability to solve problems and answer questions correctly.

**Problem-solving method:** This is otherwise known as problem-based learning. It is a student-centred teaching method in which students learn about a subject through the experience of solving an open-ended problem found in the learning process or programme (Maharg, 2011). It enhances knowledge and skill acquisition through group participation, collaboration and communication.

**Humor:** Humor is one of the innovative methods for teaching. Humor is used in the classroom to teach the students and the students feel at home, become more comfortable and healthy with enhanced comprehension and retention of the subject matter.

Any teacher that uses humor in the class always has good rapport and cordial relationship with the students (Johnson, 2013). This method helps in sustaining students' interest in the lesson as long as the teacher continues to be humorous and the students laugh and become happy.

**Team-based teaching:** this method recognizes the teacher and the student working as a team in the teaching and learning process. The major characteristics of this method is freedom and togetherness in achieving set learning goals or outcome (Ikwa & Egaga, 2014).

**Role play:** In this method every student has a role to play under the guidance of a teacher to achieve desired goals. There is active participation of students in the learning process.

**Use of Textbooks and Handouts:** in this method of instruction, the teacher issues or recommends textbooks and/or handouts to the students to guide and direct them in their learning activities. The teacher may teach them using the textbooks or handouts and in some cases, the students are required to read them on their own and report any difficulty encountered.

Traditional instructional delivery techniques in Agricultural Education has resulted in producing halfbaked graduates who lack basic knowledge and practical skills in agricultural jobs. Most of these graduates are not skillful and proficient in various agricultural fields and are not relevant in the current labour market resulting to unemployment and skills mismatch. It is therefore necessary to introduce innovative techniques in Agricultural Education instructional delivery to produce graduates who are

proficient and well equipped with basic knowledge and practical skills in various agricultural fields especially in this digital era.

The significance of this study is enormous. Innovative techniques will be beneficial to Agricultural Education institutions, universities, schools and colleges, teachers and students as they will use these innovative techniques in classroom and practical, field instructional delivery to make teaching and learning more meaningful, true to life, studentcentred, skill-oriented, problem-solving, ICT-driven and interesting. As a result of using appropriate innovative techniques in Agricultural Education instructional delivery, the labour market will be provided with adequate number of skillful and proficient graduates for matching skills demand and supply.

### **Skills Match**

Skills match refers to the blend between the skills acquired by a prospective worker and the skills requirement of the job he is to perform. This blend enables the individual to perform his job tasks efficiently, effectively and with ease. Appropriate instructional technique and delivery in the class during education brings about the needed and relevant skills that will bring about the match (European Centre for the Development of Vocational Training (Cedefop), 2010). Skills match is very important and involves many stakeholders taking various decisions at different times. Bakule, Czesana and Havlickova (2016) stated that it involves individuals and their families as they make decisions concerning education, training and labor market policy makers as they decide on the nature of education and training systems, employment policy and investments; training institutions as they make decisions on the type and content of the training courses to be delivered as well as how employers take decisions on how to train workers and utilize skills. According to Bakule et al. (2016), jobs are changing rapidly which requires individuals to also change their skills, which could be through education and training or through their work and life experience.

The quality of a job match determines the productivity level and earnings in a job (Robst, 2007; Nordin, Persson & Roth, 2010). The quality of a match between an individual's education and the occupation can be examined using different theories. According to the human capital theory, education in a specific field provides an individual with general and specific knowledge where the extent of the specific knowledge differs by field of education (Robst, 2007). On the other hand, the screening theory says that education does not reflect an increase in productivity but is an indicator of innate ability (Arrow, 1973; Spence, 1973). In the same vein, the theory of credentialism (Collins, 1979) considers skills to be acquired on the job and not during education, but education is used as a predictor of the productivity and transferability of employees. According to the job matching theory, incomplete information on the abilities of graduates, and the characteristics of jobs offered by employers result in mismatches (Jovanovic, 1979; Wolbers, 2003).

### **Skills Mismatch**

Skills mismatch is defined as the gap between an individual's job skills and the demands of the job market (McGuinness, Pouliakas & Redmond, 2017). When people working in an organization do not have the appropriate skills, there is a skills mismatch and this is seen clearly in the quality of work they perform; either they will not be able to perform the task assigned to them or they may perform it but

poorly, and this poses a serious threat to economic growth and development. According to the Global Agenda Council on Employment

(2014), this gap raises the question of the ability of societies to capitalize on their workforces where these two do not agree with one another. Milorad, Jovan and Milivoje (2016) assert that the disturbance in the market leads to reducing the usefulness of labor and also to an improper use of the most important factors of production. Furthermore, the economy is faced with the problem of the basic resource which is human potential (World Economic Forum, 2014).

### **Forms/Types of Skills Mismatch**

Different types of industrial skills and educational training mismatch are common in modern labor markets. The graduates and potential employees come to the labor market with varying knowledge, competencies and abilities as well as expectations. Skills mismatch is very broad and include different forms of labor market friction such as vertical mismatch, skills gap, skill shortages, field of

#### **Table 1: Forms of Skills Mismatch**

study or horizontal mismatch and skill obsolescence (McGuinness et al., 2017). Vertical mismatch refers to a situation where the level of education or qualification of workers is less or more than required, thus they are either under skilled or over skilled. Skill gap is a situation in the labor market where the level of skills of individuals does not match the level of skills required in the jobs. It is used as a qualitative term to describe a situation in which the level of skills of the employee or a group of employees is lower than that required to perform the job adequately, or the type of skill acquired by the employee does not match the job requirements (Cedefop, 2010). A skill shortage exists when there are not enough people having a particular skill to meet demand. It is a term used to mean that the supply of labor is not sufficient to meet the demand at current rates of pay. Horizontal mismatch refers to a situation where the level of education or qualification is adequate but not in the required field of education to perform the job effectively. Skills obsolescence is a situation where previously used skills become outdated and are no longer necessary to perform a part particular job.

Skill shortage	Demand for particular type of skill exceeds the supply of people with that skill at equilibrium rates of pay. Example, demand for people who have special skills in manual harvesting of oil palm fruits exceeds the supply of such people in Nigeria.
Qualification mismatch	The level of qualification and/or the field of qualification is different from that required to perform the job adequately. Example, a HND holder in Animal Husbandry seeking employment in arable crop production company.
Over-(Under-) qualification/education	The level of qualification/education is higher (lower) than required to perform the job adequately. Example a B.Sc Holder in crop science to assume the position of Head of Department of crop science in University of Nigeria, Nsukka and vice versa.
Skill gap	The type or level of skills is different from that required to perform the job adequately. Example a graduate of forestry seeking for job in a large fish farm.
Over- skilling	This is a situation where the level of skill is higher than required to adequately perform the job and the person is unable to fully use his skills and abilities. Example a qualified tractor operator seeking to be employed to use hoe in tilling the soil and making ridges.
Under-skilling	It is a situation where a person lacks necessary skills and abilities for performing the current job according to current standards. Example, a person who learnt how to drive a car cannot operate tractor in the farm to carryout farm operations.
Credentialism	A situation where the level of education necessary to get a job exceeds the level of education needed to adequately do the job. This situation refers to the belief of employers that a graduation certificate or diploma implies a greater productivity. Example a Ph.D Holder seeking employment as a poultry attendant.

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Economic skills obsolescence	This is a situation where previously used skills to do a job are obsolete, lost in value and no longer necessary to do the same job. Example skills in traditional poultry keeping and modern skills in poultry keeping such as battery cage system are different but in the same poultry keeping
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Sources: Cedefop (2010, p.13); Sloan (2014, p.2).

## **Causes and Effects of Skills Mismatch**

Causes of skills mismatch include inadequacy of suitably qualified or skilled workers, labor market dynamism, individual's initial and occupational choice and poor recruitment practices inadequate jobs. In addition, (Robst, 2007) identified the following factors as being responsible for the mismatch between agriculture educational training and skills requirement: the curricula tend to be outdated and irrelevant to adequately address the challenges facing modern agriculture, the curricula are still focused on farm production rather than incorporating all the segments of agricultural value chains and entrepreneurship, agribusiness, processing and marketing; use of teaching methods which are traditional such as lectures, discussion, use of textbooks and handout field trips and demonstration with lack of complementary practical training which makes students relatively passive receivers of information and which do not teach them critical thinking skills to challenge the information provided and the modern training tools (ICTs and online courses) are not widely used to attract the youth. This is partly due to the fact that many of the teachers still lack the capacity to shift from their chalkboard and analogue background to the digital method of teaching. The narrow internet network and the erratic power supply also limit the complete and wider adoption of use of modern ICT tools.

According to Nordin, et al. (2010), skills mismatch has several negative effects which include the following: underemployment for workers who are overeducated and over skilled; secondly, some workers who are over educated and adequately skilled, might as well be able to acquire the same skill set through a lower level education program resulting to prolonged period of education without corresponding superior better quality skills; thirdly, mismatch can cause delay in entry of youths into the labor market if they do not find job that are appropriate with their education and/or skills, thus having an opportunity cost for young graduates and for the national economy. Forth, workers who are both under educated and under skilled have limited productivity, which is a problem both for them (in form of lower wages) and the firm. Fifth, a combination of over education and under skilling may signal field-of-study mismatch (Sloan, 2013). In this case, there are inefficiencies, as it would have been possible to produce better skilled students with the same resources. Sixth, unused skills will waste away, resulting in a partial loss of the initial investment in them. Even when adjustment takes place, it may be costly and prevent the adoption of new technologies.

## **The need to adopt innovative techniques in agricultural education instructional delivery**

Agricultural curricula, especially at the senior secondary level and above, is vocational oriented and designed for directed instruction, aimed at turning out skilled vocational agriculture practitioners for sustenance as means of livelihood (Ikutal, Ajigo & Ben, 2015). Being vocational oriented, it is education for the specifics, which is it is education for jobs and employment (Robst, 2007). Agriculture is organized into different specific areas such as crop production, livestock production, fisheries, forestry, processing of plant and animal products, marketing in which people are trained to work. Thus agricultural education is an educational program that prepares individuals in skills, knowledge, attitudes, abilities

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and competencies in the specific areas for work. It is education designed specifically for employment and work. Training in this field should therefore be geared towards meeting skills demand and supply.

However, instructions in agricultural science have failed to achieve this laudable objective, but rather turned unskilled, unproductive and disillusioned youths who parade the streets looking for white collar jobs (Ekong, Ikutal & Ibe, 2009). This situation, according to Ikutal and Egaga (2014) may be due to the use of ineffective and inappropriate teaching approaches by the teachers in instructional delivery. The old traditional methods of instruction used to produce graduates who ultimately make up the workforce are now outdated and do not fit the current end users needs which according to AESIF (2015) are gradually shifting towards problem solving skills, multi-institutional management capabilities as well as value addition, private sector orientation and market driven systems. Agriculture efficiency is now more knowledge based and productivity increases substantially as the level of education of practitioners increase thus requiring an agricultural workforce having a new set of skills and competencies which includes a new mindset and understanding.

The current educational approaches do not adequately develop individual or organizational capabilities to innovate (Davis, 2008). According to Davies, these current education approaches are unable to produce technically and professionally qualified human resources, conduct research and produce applied knowledge and technologies and conduct outreach and dissemination of research results. Vandebosch (2006) agreed with the above and reiterated that there is need for increased investment in training and development of more relevant and effective agriculture education and training models that are responsive to changing demands in the labor markets. There is therefore the need to introduce innovative techniques in agricultural education instructional delivery to avoid producing unskilled and half-baked graduates resulting to skill mismatch.

### **Innovative techniques in agricultural education instructional delivery**

The following are some innovative techniques which can be used in updating teaching and learning methods in agricultural education:

**Making use of Information and Communication Technologies (ICTs):** Information and communication technology (ICT) are computer based tools which people work with for information and communication processing. They include computers, radio, television sets, projectors, video camera, disc players, interactive white board, internet and internet services etc. Ozoji in Jimoh (2007) explains ICT as the handling and processing of information which includes texts, images, graphics, instructions etc for use by means of electronic and communication devices such as computers, cameras and telecommunications. Benefits of using ICT in agricultural education instructional delivery according to Simuyi (1999) cited in Adegbija (2011) include: increased access to instructional resources; sharing experiences through technologies such as the virtual university; motivation of learners. Mc Farlane and Sakellariou (2010) pointed out that the use of ICTs in Agricultural Education instructional delivery are of

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immense benefit to both the learners and the teachers. Such benefits include: making teaching and learning very interesting, enables learners to learn at their own pace and learn according to their abilities and capabilities, enable teachers to show experiments and practical demonstrations in some programme such as simulation.

The teacher during classroom instruction uses ICT tools and facilities to enhance teaching and learning. In the course of instructional delivery in Agricultural

Education, the teachers may use overhead projectors, slides, power point, films, videos, mobile phones, computers, internet services, software programs like e-mails, Ms word, excel and others, VCD/DVD machines, scanners, printers and photocopying machines to improve teaching and learning.

**Massive Open Online Courses (MOOCs):** The massive open online courses are free online courses available for learners to enroll in. They provide affordable and flexible ways of learning new skills and deliver quality educational experiences. The teacher uses on line services like internet to deliver his lessons to students at distant areas. This is used massively in open universities all over the world. This innovative instructional delivery techniques is an online video, text messages containing an institution's lecture covering her different programmes offered in such institution. This is a type of distant e-learning in which there is unlimited number of students enrolling for programs from different parts of the world. Massive number of students are always involved in MOOCs. Virtually all open universities in the world apply MOOCs in teaching to reach out to their students. Peterson (2017) enumerated the pros and cons of MOOCs. According to the author, the pros include cheap and almost free, provide a solution to overcrowding in the class, force lecturers to improve lecturers, create a dynamic archive, designed to ensure that students keep up and are satisfied, bring people together from all over the world, allow teachers to make the most of classroom time in blended classes and offer interesting business opportunities. The author further stated the cons as follows: MOOCs could cause teachers to become nothing more than —glorified teaching assistants,|| make discussion a challenge, grading papers is impossible, make it easier for students to drop out, intellectual property and financial details are issues, miss the magic of sitting together in the classroom to have real human interactions and will shrink faculties eventually eliminating them.

**Adoption of mobile education and training platforms:** Mobile learning also known as M-learning is a distance form of learning in which the M-learners use mobile device educational technologies at their time convenience. It is carried out with the help of mobile devices such as the phone, laptop or tablet (Aneke, 2015). With these gadgets you can learn wherever and whenever you want. Learners can interact among themselves and with their teacher using the mobile devices. Agricultural Education teachers ask questions and the students answer the questions on their mobile devices. Practical demonstrations are displayed using videos which make learning more lively (Owolabi & Owolabi, 2015). This technique will be very effective in agricultural instructional delivery as it will be very useful in disseminating information on innovation and best practices as well as motivating students to learn such as videos and texts on modern systems of food production and processing.

**Game and Simulation:** Games here refers to academic sports competition among students to excel and win in their assigned activities guided by the rules and regulations of the game or role. Simulation in instructional delivery is the imitation of exact learning situations environment, system, activities or processes by students or learners with Pedagogical and cybernetic elements which assist them to gain more knowledge and solve the problem pertaining to the system or environment. (Gredler, 2018).

**Humor teachingmethod:** Humor is one of the innovative methods for teaching. Humor is used in the classroom to teach the students and the students feel at home, become more comfortable and healthy with enhanced comprehension and retention of the subject matter (Johnson, 2013). Teacher use humor to make teaching and learning more meaningful and true to life. It enhances cordial relationship between the teacher and student during the teaching and learning process. Humor teaching method help to sustain students' interest in the learning process and makes them to explore more knowledge and skills in the subject matter.

**Self instructional package:** Self instructional package (SIP) is one of the recent innovative techniques in Agricultural Education instructional delivery which is student-centred and encourages individualized leaving it provides for the need of a particular student and allows him to progress at his own pace. Self instructional package (SIP) is a type of communication between the student and the package that contains instructions for student activities teaching towards specified achievement (Smith, 2007). This type of instructional package is a booklet on a particular topic developed by the teacher containing objectives and activities related to the topic on how to realize the objective and method of evaluation. Smith (2007) and Chauhan (2004) enumeration the advantages of SIP to include breaking materials into small units; making instruction more student-centred; stimulate students' interest in the lessons through active participation; permits time for students to assimilate and accommodate information and builds self-confidence in students. SIP encourages the acquisition of more practical skills and basic knowledge by students thereby reducing the problem of unemployment and skill mismatch in agricultural areas.

**Flipped classroom teaching method:** In flipped classroom, teaching and learning are done outside the class through video lectures, lecture slides, digital modules and/or other relevant online media. This method exposes the students to the course content and builds in times for students to consider and familiarize themselves with content before engaging with it more actively in class. Flipping the classroom improves students' conceptual grasp of content beyond memorization and basic knowledge (Berrett, 2012; Casasola 2017). The flipped classroom allows students in line with the teacher's assignment to engage with online materials, lectures and other learning materials in preparation for active participation in the classroom with the teacher. According Peterson (2017), the teachers send students home with assignments to listen to or watch a recorded lecture, or read it, and return to the classroom for more valuable discussion time or other interactive learning.

Supervised Agricultural Experience programme is one of the major components of Agricultural Education programmes aimed at teaching the students on-the-job skills in various agricultural fields (Phipps, Osborne, Dyer & Ball, 2008). This programme involves real-world agricultural activities done by students outside of planned classroom and laboratory time in which systematic instructions and supervisions are given by teachers, parent and employers (Watson, 2013). This programme is of immense benefit to the students, schools, employers, communities, parents and teachers. Watson (2013) identified four major types of Supervised Agricultural Experience programmes as used for training

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agriculture students for skill acquisition, generating money and enabling them become proficient in agricultural occupations after graduation (Eric & Andrew, 2014). It is a modified form of Industrial Training (IT) or students, Industrial work Experience scheme (SIWES). This programme can be used to used to teach students skills in animal and crop production, entrepreneurship, food processing and agricultural research.

**Project or problem-based learning:** This is a method of teaching in which the students are engaged in exploring the real-world problems and challenges. In it, the problems are identified and solutions developed. The teacher gives the students or small group of students project topics to work on and the teacher supervises and guides the students' activities to enable them realize the set objectives. (Maharg, 2011). Problem-based learning is a method where the teaching and learning process is based on using problems as a starting point or pivot for acquisition and interaction of new knowledge thereby finding answers to detected existing problems. The students participate actively and work as a team while the teachers stand as facilitators. This method encourages proper skill acquisition in agricultural fields (Austrahan Correspondence Schools (ACS), 2011).

**Experiential learning:** This method involves learning by doing and learning based on experience of the learners. It encourages critical thinking among the students especially adult students who have a variety of knowledge, life experience and can easily develop new ideas (Peterson, 2017).

## Conclusions

In order to produce an efficient and effective workforce for the different disciplines in the agricultural industry which will match skills demand and supply, educational instructional techniques have a very significant role to play. The delivery techniques should be such that will impart the appropriate and relevant skills to fully equip individuals and prepare them for the industry. Most of the old traditional instructional delivery techniques such as lectures, discussion use of textbooks and handouts, field trips, excursion and demonstration have been found to be obsolete and ineffective in producing the required skilled individuals in current need. Some innovative instructional techniques such as use of ICTs, massive open online courses, mobile education and training platform, game and simulation, humor teaching method, self- instructional package, flipped classroom method, supervised Agricultural experience programme, problem or project-based learning and experiential learning have been proved to be effective in matching skills demand and supply as shown in the paper. Teachers should therefore adopt such instructional techniques that will fully equip potential workers with the necessary skills to make them perform effectively on their jobs.

## Recommendations

The following recommendations are made to make agricultural education instructional delivery to match skills demand and supply:

1. Adoption of cooperative education and Supervised Agricultural Experience programme by Agricultural Institutions and teachers to help students carry out practical work in the farms and industries while they learn the theoretical aspect in the school. This will make them more proficient and perfect in the performance of their job tasks.

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2. There should be improvement of practical classes at all levels of education, thus making knowledge more concrete. This will also enhance development of skills and the promotion of the importance of self education through entrepreneurial education.
3. Government through the Ministry of Education and institutions should allow for training and retraining of teachers to help them update their skills and knowledge on best methods and practices of instructional delivery.
4. Government through the Ministry of Education and Institutions should establish and strengthen advisory bodies in educational institutions whose responsibility will be to make sure that instructional packages and methods instructional delivery for agricultural education of are such that will match skills demand in the relevant industries. Such advisory bodies should involve representatives of employers and educational institutions.
5. The government through the Ministry of Education, institutions and curriculum planners should create programs at all levels of education in conformity with the needs of both the student and the labor market.
6. School administrators should direct teachers to use more of digital innovative teaching methods than old, traditional and obsolete, analogue methods.
7. Government at all levels through the Ministry of Education, Ministry of Science and Technology and Philanthropists should provide sufficient ICT tools and facilities in schools and institutions agricultural establishment and encourage teachers and other stakeholders in agriculture to use them effectively in Agricultural Education Instructional delivery for better results.

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