



Learning Management towards Enhancing Understanding: Teachers' and Students' Perspectives

Magaji Adamu Abubakar^{*}, Ibrahim Audu[†] & Mukhtar Baba[†]

**Department of Business Administration, Federal University Dutse*

+Department of Accounting and Business Administration, Federal University of Kashere

magajiaa@fud.edu.ng

Abstract: The Teacher and the Student constitute the final link for bridging the present to the future. The congruency of their behaviour to an envisaged, now a present, future is the validation for the process of education. In this future, a nation in apathy smacks of a mismanaged learning process. Yet there is a scantiness of local interest on the albatross that bedevils the learning process. We visit the managerial behaviours of the bottom links of our educational process in order to awaken interests in the elements of a successful learning. We adopted triangulation as a method of meta-analysis to determine the elements that leads towards enhancing understanding of concepts in the learning process. This was supported by a token application of structural equation modelling. We found that, among other things, the behaviours of the teacher and the students are significant towards enhancing understanding of concepts. A major recommendation, we proffered, is for a deeper look at the final results of learning in order to curb shortcomings and promote successes.

Keywords: Management, Teacher, Student, Understanding, Nigeria.

Introduction

Learning is a communal endeavour. The nation decides its goals and contents, entrust it into the hands of a group of people called teachers, to be administered on the youth so as to keep the nation in a good supply of smart people. This endeavour is a process that foresees a future, earmark an area to be situated in that future, allocate the envisaged resources that are necessary for success. It is self-perpetuating with the right management. In this future, a century worth of education has not placed this nation on the right earmark. In Nigeria, traditional farming techniques still prevail, Our pencils and toothpicks are imported. Even our presidents go abroad for healthcare. While Balogun, Tejumola, Yisa, and Balogun (2018) lay the blame on top management we prefer to remain with Hattie (2013) who lays the blame on proper learning management in the vestibule of the teacher and the student. Bevill (2013) and Giesen (2013) also agree with Hattie and further advocate for the right management of the learning process to enhance understanding rather than just memorising concepts. This paper, therefore, aims at clarifying what the teacher and students should do towards enhancing understanding. We hope this will awaken local interests and deeper discussion on the subject matter of education and its benefits.

Teacher Perspective

The ultimate purpose of education is learning and that lies in the purview of the teacher (Robinson, 2013). Teachers are the machinery that produces this output called students. Their quality and success validate the existence of the teacher and the rest of the chain that lies above him. Cognitive Psychologists had a field day and are having one on how the teacher achieves good quality. They had a 'grand theory of learning', which have recently narrowed down to 'educational learning situations' (Biggs, 1999). In a century's



worth of work, we have them to thank for constructivism and phenomenography. According to Iran-Nejad and Stewart (2011), there are two main perspectives of constructivism. The first is information processing constructivism which provides that knowing is symbolic and it adds up to a symbolic understanding. That is, knowing is an internalisation of external knowledge and understanding is a more elaborate form of knowing (Iran-Nejad and Stewart). The implication is that all the teacher need do is supply the needed information while holding the student's attention for understanding to occur. This perspective does not really account for a knowing that transcends symbolic, which is rather constrained to knowing that and knowing how beyond which there is a knowing of being aware – a knowing with.

The second perspective, as enumerated by Iran-Nejad and Stewart (2011), is Bio-functional constructivism, which views knowing as a non-symbolic awareness of multiple internal and external sources. As they succinctly explain, understanding is an ever-evolving bio-functional process of multiple-source integration and reorganisation of the learners' own intuition while knowing is characterised as the intuitive self-awareness of bio-functional activities in the nervous system. This perspective received a boost as Boyd (2015) explains neuron-plasticity – the ability of the brain to change. She explains that the brain changes in three different ways to support learning. The first of such changes are chemical; the brain increases the amount and concentration of chemical signaling in-between neurons to support temporary learning. Second, the brain can alter its structure by changing the connectors between neurons to support long-term learning. It can also alter the functions of neurons and their connectors to support relearning. Boyd concludes that as a brain region is utilised it becomes more and more excitable and easier to use again, in a unique way from person to person. The teaching implication of this perspective is that for learning to occur there is a need for exposure, motivation, and repetition in a highly flexible way to accommodate the variability of neuro-plasticity. Moreover, learning is very much dependent on learner behaviours.

Constructivism whether symbolic knowing or bio-functional awareness is reliant on learner experiences that form a more recent focus of cognitive psychologists. This newer focus, phenomenography, has been decreed to be the phenomenology of old, at least in its qualitative approach to investigations and has been written off because of its heuristic methodology, reports Richardson (1999). Larsson and Holmstrom (2007) see a difference between the objectives of phenomenography – an approach aiming at describing different ways a group of people can understand a phenomenon, and that of phenomenology – that aims at clarifying the structure and meaning of a phenomenon. Biggs (1999) posits that rather than dwell on the differences in theory drives it is of more essence to learning to appreciate the commonalities between constructivism and phenomenography, which have redirected attention towards enhancing understanding of phenomena – learning activities. These, he believes, are well captured in the term 'approaches to learning'. Education is about learning manifested as a conceptual change and not just the acquisition of information. Symbolic knowing and bio-functional awareness should lead to changes in behaviour. This should, therefore, be the guide to what we do in learning.



Approaches to learning include the traditional Teacher-centred and the modern Learner-centred or the more appropriate name for universities - student-centered learning (Harden, Sowden & Dunn, 1984, Ahmad, 2013 and Wright, 2013). The difference between the two approaches is rooted in what one perceives as the purpose of teaching. Adherents of the traditional approach see the purpose of teaching as a transmission of information or ideas, from the teacher to the student that is needed for the syntheses of knowledge and understanding (Biggs, 2011). Biggs also noted that in student-centered learning the teacher is viewed as a facilitator to bring about the conceptual understanding of the world through student-based choices (Albeit in consultations with the teacher) of activities. Harden et al. (1984) see the difference as more embedded than this with the teacher versus student focus of learning as just one of the issues. The main contention is on the purpose of education and the curriculum that would lead to a more effective achievement of this purpose. There is the traditional curriculum on one hand and there is the innovative curriculum on the other; the former adopt the time-tested strategies while the latter supports the more innovative strategies of achieving the purpose of education made necessary by changed learning situations. Perhaps it is not this deep; it is only a professional revolt against over-legislation of the education sector (Sahlberg, 2012; Shaw, 2016) and the incessant criticisms of the politicians on the achievements of the 'teacher' (Hattie, 2013). After all, we are an innovative profession that accomplishes targets and past records attest to that both individually and collectively.

The drive towards innovation is inherent in this profession and not just as in Americas as wrongly asserted by Bevill (2013). Maria Montessori was not American though John Dewey was; they were both teachers first and anything else follows. They advocated for a gestalt-learning environment that is bounded by the relevant situations so that autonomy is not absolute. Moreover, holding Teachers more responsible than accountable is one of the great moves that make the educational system in Finland to be the best in the world (Sahlberg, 2012). The teacher should have enough autonomy to choose the strategy to accomplish learning and the expertise to do that is there as asserted by Hattie (2013). With teacher autonomy, the choice is hers between the strategy that stipulates everything from the verb to use down to the corner of the board to write the topic of the day (Shaw, 2016) or the innovative strategy that gives more leeway. In the end, the teacher is responsible for learning.

There are two important determinants of learning. The first is the expertise of the teacher, as opinionated by Sahlberg (2012) and Hattie (2013). The second is what the student does (Biggs, 1999). Hattie believes in that profound expertise of the teacher that can drive significant achievement in learning and ultimately a desire for relearning. It is the ability to determine accurately what the student already knows and vividly show her what success looks like in order to instill a drive towards it. That expertise employed in a collective effort, for teaching is a collective endeavour, to determine the impact factor on the student. That is, it is the factor, out of more than 200 issues researched by him, that has a significant impact on student learning. Robinson (2013) supports this position as he



asserts that teaching is an art and the skill for it is in abundance; the right management is required to unleash it. Biggs upholds the expert teacher position through positing that all teachers pass through hierarchical developmental stages where there are changes of focus at each of the stages. At stage 1, the focus of the teacher is usually on what the student is; the teacher is a discipline area expert and delivers information accurately. At stage 2, the focus is on what he does as a teacher; the teacher is an expert with an armory of concepts delivery skills. At stage 3, the focus is on what the student does; the teacher is now the expert Hattie refers to and attainment of learning depends on both this expertise and the learning activities engaged in by the students. Nonetheless, concludes Biggs, the activities of the student are also important in learning.

There are techniques that can help a student learn and the teacher is honour bound to bring a motley combination to bear in discharging her responsibilities. One of such, as Bevill (2013) explains, is getting the students to engage in 'movement'. This may include morning exercises or simply getting them to stretch their limbs intermittently during lessons. Another one, as Giesen (2013) postulates, is getting the students to think about their thinking or in other words, engage in meta-cognition. This motivates the students to see the difference between memorising and understanding. In another submission, Creswell (2014), a mathematician, believes that getting the students to think about the beginning of creation help facilitate the understanding of general ideas. She also posits that to facilitate analytical understanding the teacher should get the students to think about sex or lovemaking prior to delivery of materials. However, this is not a call for lewdness in class. In addition, Boyd (2015) posited that in facilitating learning, there should be motivation and constant practice though she acknowledges the dosage individually variable and incident on the learning material. Finally, the teacher should have enough autonomy to decide to either uphold the traditional class or flip it. That is, have the choice to be either a sage at the front and centre of the class or a guide at the side of the class (Ruhl, 2015). Nonetheless, he stresses that a well-thought-out lesson plan is necessary to achieve learning in both cases. Balogun et al. (2018) chose the sage but with a lot of push for extra study through e-learning. Biggs (1999), on his part, had espoused a complete approach, he refers to as Teaching/Learning Alignment (TLA). This involves the determination of lesson objectives and of forging an alignment between the set objectives and all other activities necessary to achieve them including the level and forms of learning tests. There is now a tilt, as evidenced by most of the articles cited herein, towards the student-centered learning. Whatever you do as teachers beware that settling for the Gaussian curve is mediocre even based on the predictive validity of the teaming teachers with whom the child has had an acquaintance. It is the responsibility of the teacher to nurture the confidence of the students and to inspire a desire for knowledge, if not there originally. That should produce, as surmised by Luan and Jiang (2016:1);

"Students who will "love learning and value knowledge," who will become "confident and self-motivated learners" and "independent and responsible thinkers," who will be "open-minded and compassionate" and "fulfill their creative potential," who will display "curiosity, responsibility, self-assurance, independence, and teamwork"'



Marton and Säljö (1976), (cited in Biggs, 1999), assert that there are only two alternate learning activities a student can adopt; the deep learning approach or the surface learning approach. The deep approach is usually adopted by the 'academic students' and involves digging deeper to comprehend the theories taught in the class. Jadin, Gruber, and Batinic (2009) refer to this approach as the repeat strategy. This strategy involves getting conversant with concepts, linkages with other concepts in reality and the underlying theories to derive understanding. The students that operate this strategy usually perform better at tests of learning. Non-academic students adopt the surface approach (Biggs), also referred to as the surfing strategy by Jadin et al., that involves less commitment to learning than to certification. This strategy also referred to as memorisation by Garlikov (n. d.) is described by Anyon (1996, 192) in the following words, "...store facts in your head like cold storage until you need it later for a test" Academic students achieve the desired level of engagement with learning materials without much assistance and they are less found in present-day classes (Biggs, 1999). It is the responsibility of the teacher to supervise a closing of the level of engagement gap between the academic students and the non-academic students.

High-level engagement

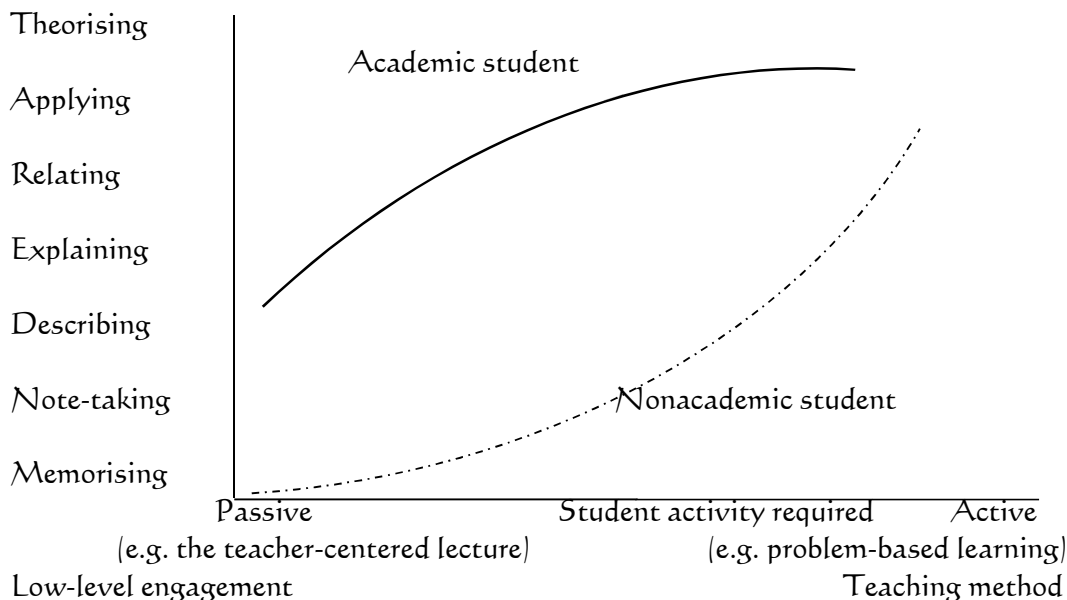


Figure 1 Student orientation, teaching method, and level of engagement.

Source: Biggs (1999)

For the non-academic student, the teacher has to provide enough guidance and motivation to learning and most of all to relearning. That is, instill a drive to acquire knowledge for now and in the future as a key to farewell. The good news, as Hattie (2013) reports, is that there is nothing much the school situation can do to harm students. In our business (of teaching), he adds, what works for some students works for all students; it is the power of passion and collective expertise that matter the most. It is the expertise to gauge the



proportion of the deep to the surface students; to close the gap between their performances. It is the passion to care and to exert all the skills in the collective efforts of teachers in discharging their responsibility towards the desired impact on all students.

Student Perspective

The whole of life is about learning and development. Even basic survival instincts, such as breathing, may have to be prompted at birth for it to commence: Other developmental tasks acquire prominence from then on to the end of life. Nobody was born with the ability to tie his shoes submits Moodie (2017), but is overcome through a concerted effort. Such efforts may be required by the society to be in an informal or a formal setting called a school. Given the pervading nature of developmental tasks, it has led to a societal ever-increasing expectation for schools to assume more responsibility in raising children (Bounds and Holifield, 2011) and less learning at home as the school going age is lowered. At the very least, the society expects schools to produce smart citizens (Graham, Van Bergen and Sweller, 2015), who have acquired the know-how of overcoming developmental tasks through relearning abilities. The students accept these positions but are wont to view the success of overcoming developmental tasks more as certification and to a minority as self-realisation (Biggs, 1999).

Our memory of the first day at school is almost always of bewilderment at the new surroundings and a lack of understanding of the purpose of being there. The bewilderment is stronger in early-age schools than in higher institutions. This feeling gradually recedes as we accustomed to the environment and more importantly as we gain a better understanding of the purpose of attendance. Another source of confusion sets in, even with growing understanding of the purpose of attendance; destiny seems to have determined the successful students and those that just tag along. It seems to most that no matter what the tag-along do, it is of no use, they just tag along. This is far from it. Studies have shown that with the right perspective every student can become successful. Robinson (2013) reports that even the Death Valley produce life with a little moisture. That 'moisture' comes from within as Moodie (2017) posits and it is called efforts. He elaborates that being smart or talented does not matter; what does matter are your efforts. You put in enough efforts and you become a successful student. He quotes Thomas Allison at the 14th minute of his talk as saying; "Opportunities are missed by everyone because they are dressed in overalls and look like work". Douglas (2015) explains a similar opinion when he reports that the initial IQ does matter what does is a set of skills, that cut across countries, top students use to obtain high marks. These skills, he explains further, can be taught to and be used by everybody else. These include, first, stop worrying about IQ; establish a target and remain steadfast in working towards it. Second, work hard at doing the right things towards achieving your target; an enduring factor, his research discovered, is practising exams. Third, model the top students; create a study timetable – for perseverance, what goes into the study timetables of top students are their leisure time activities first and the actual study times are filled in around these leisure periods. Bhatt (2014, 10th minute) posits that: "Educational freedom comes not from the preparedness of the educators but from the efforts of the student to verify what is within



and to validate her values and beliefs". Moodie (2017) also advocates for the modelling of the top students and Thomas (2017) supports him by listing the habits of highly successful students as follows;

- I. Think ahead to contend with your life dragons: Be mindful of the future; feature in all important dates into your plans
- II. Move towards adulthood; make a concerted effort to become independent – learn to iron your shirt, cook and try to earn a living to reduce the times you call for help
- III. Be a solution finder; try out new ways that might solve your problems before asking for help.
- IV. Build a relationship network. This should include your teachers, associations and other students in the top class category.
- V. Learn outside the class. Introduce variety to your learning experience even if with advanced curriculums. (Bhatt, 2014, opines that the formal education is really a basic minimum)
- VI. Keep your ears to the ground; utilise news outlets such as notice boards and the social media.
- VII. Stay physically and mentally fit. Games and timely sleep are essential for your wellbeing.
- VIII. Try before you think you are ready. Avoid the impostor syndrome.

Modelling of the top students should not be a dogged stereotyping but should emanate from an understanding of your abilities and what is necessary for success. Giesen (2013) prescribes an understanding of the process of your thinking. This helps you in differentiating between memorising the elements of a concept and understanding the concept. There is a higher probability of success through the latter as a student and in later life. Boyd (2015) acknowledges an individuality in the speed of learning and advice an application of varying effort toward an understanding of concepts. She warns that the initial stage is always the hardest. To combat this hard stage Bhatt (2014) advises trying to arouse a favourable sentiment towards the concept because memory retention occurs at the area of our brains that is responsible for our emotions – the cortex. The best advice comes from Wagner (2017) when she advocates for mind mapping. This is a technique that helps you remember key ideas and the connections between them. It is a freeform notation of key ideas that starts at the centre and branch out radially through connecting branches. It is an important technique that propels you towards success as it helps you learn, store and retrieve a concept for the application. This is the ultimate aim of education.

Methodology

Wiktionary (version English 3.2.2) explains phenomenography as a body of qualitative research methodologies that aims at clarifying how learning occurs. Meta-analysis is one of these methods. This paper adopts Meta-analysis as a principal method to triangulate the process of learning by understanding from cardinal viewpoints on the process. It is supported by a token application of the Structural Equation Modelling through the Partial Least Squares regression. The population used consists of the registered students of Business Communication class of Federal University of Kashere, Gombe, Nigeria for the 2016/2017 academic session. There were 76 cases and this satisfies the 10 times thumb rule



for data adequacy. Data was collected via a questionnaire (see appendix 1) which contains 17 questions that measure the 3 constructs of the inner model. These constructs (see appendix 2) are the personal characteristics of the student, the presentation style and the understanding of the student. The personal characteristics of the student and the presentation style are endogenous constructs with 7 and 5 formative measures, respectively while the understanding construct is exogenous with 5 reflective measures. There was no missing data and Smart pls 3 software (student version) was utilised to run a consistent pls algorithm. Being a token application, our observation of the result was restricted to the inner model especially path coefficients and the residual.

Findings, Discussions, and Recommendations

The extant literature on enhancing understanding mostly argue the same belief; in learning, what top management of the education process do does not matter much as long as they accord teachers the freedom to teach. What does matter is that teachers should be made responsible for learning to occur because they are the experts who have an itinerary of techniques in learning. They must bring their expertise to bear on the enhancement of learning by understanding. Our primary finding confirms this common position as shown by the persistent algorithm result of our data. The inner structural equation model show path coefficients of 0.125 on personal characteristics, 0.766 on presentation style and a residual of 0.504 on the dependant variable. This signifies that there are some other factors at play in enhancing understanding but certainly presentation styles of teachers are far more important than personal characteristics of students towards driving an understanding of concepts. The conclusion from this finding is that proper learning management enhances understanding. Impliedly, learning point management that is class management is a primary concern. The teacher must discharge this responsibility adequately. There must be proper planning to achieve each objective of a learning situation, even in student-centred learning, where there is a choice of *what* to learn; the *how* must be properly planned. There is also a collective impact management concern that dwells on the learning unit head; the learning process should be properly controlled to ensure effective and efficient utilisation of resources. To this end we recommend demanding each teacher to adduce reasons for result curves, especially where there is a high skewness.

Another common thread in the extant literature is that the effort of the student is the primary factor in the determination of learning success. The teacher should have a zeal to drive student learning even for its intrinsic reward and the student must be motivated to exert enough efforts to achieve learning. A good measure of the efficiency of the teacher's effort is the kurtosis of the result curve; for the existence of one learning objective there should be a narrower spread of learning achievements. On his part, the student must manage himself efficiently enough to achieve learning objective. He should allocate his resources efficiently with the right techniques. Efficient time management can be achieved via a study timetable in which the first things that go in are your leisure times and then rest times. Your lecture periods and study times can then be filled in around these more important things. It also helps to conduct a self swot analysis; quite obviously the one



that lives further away should begin earlier to get to class on time. This holds for most other things including learning. Nobody was born smart but at the end and given normality we all learned to tie our shoes. Though the effort required differs at the end what matters is the achievement of an objective. To enhance this achievement we recommend further studies of the psychological factors that promote learning and the techniques that enhance understanding of concepts.

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Appendix I Data collection instrument

QUESTIONNAIRE!

Please, provide answers to the following questions in the appropriate way and with as much honesty as possible. The answers are to be used in an academic research and as such do not require any personal identifiers.

DEMOGRAPHICS

- 1) SEX: Male Female
- 2) Age:.....
- 3) CGPA
- 4) Average number of hours spent reading per day
- 5) Tribe: Igbo Yoruba Hausa Fulani
Tangale Kanuri Others (specify)
- 6) How many cl[] friends do you have in this[] community?
- 7) Religion: Islam Christianity Others (specify).....
- 8) How many difficult words were used in the presentation?.....
- 9) How many grammatical errors did you notice in the presentations?.....
- 10) Was the presentation of this group inductive? Yes No
State your reason
- 11) Did this group use an illustration in presenting their idea? es
No
- 12) Indicate the speed of presentation for this group on a scale from slow at 1 to very fast at 5 by ticking appropriately.
1 2 3 4 5
- 13) Indicate your readiness to implement this group's idea on a scale of 1 (Not likely to try) to 5 (Very likely to try) 1 2 3 4 5
- 14) Indicate the how likely you might attempt a question from this group's idea in the forthcoming exam on a scale of 1 (Not likely to try) to 5 (Very likely to try)
1 2 3 4 5
- 15) Indicate your level of agreement with this group's idea on a scale of 1 (Totally disagree) to 5 (Totally agree)
1 2 3 4 5
- 16) Indicate the relevance of the idea presented by this group to your learning process on a scale of 1 (Not very relevant) to 5 (Very relevant)
1 2 3 4 5
- 17) Write the entire question you will like to ask this group at the back of this sheet.

Appendix II Understanding splsm

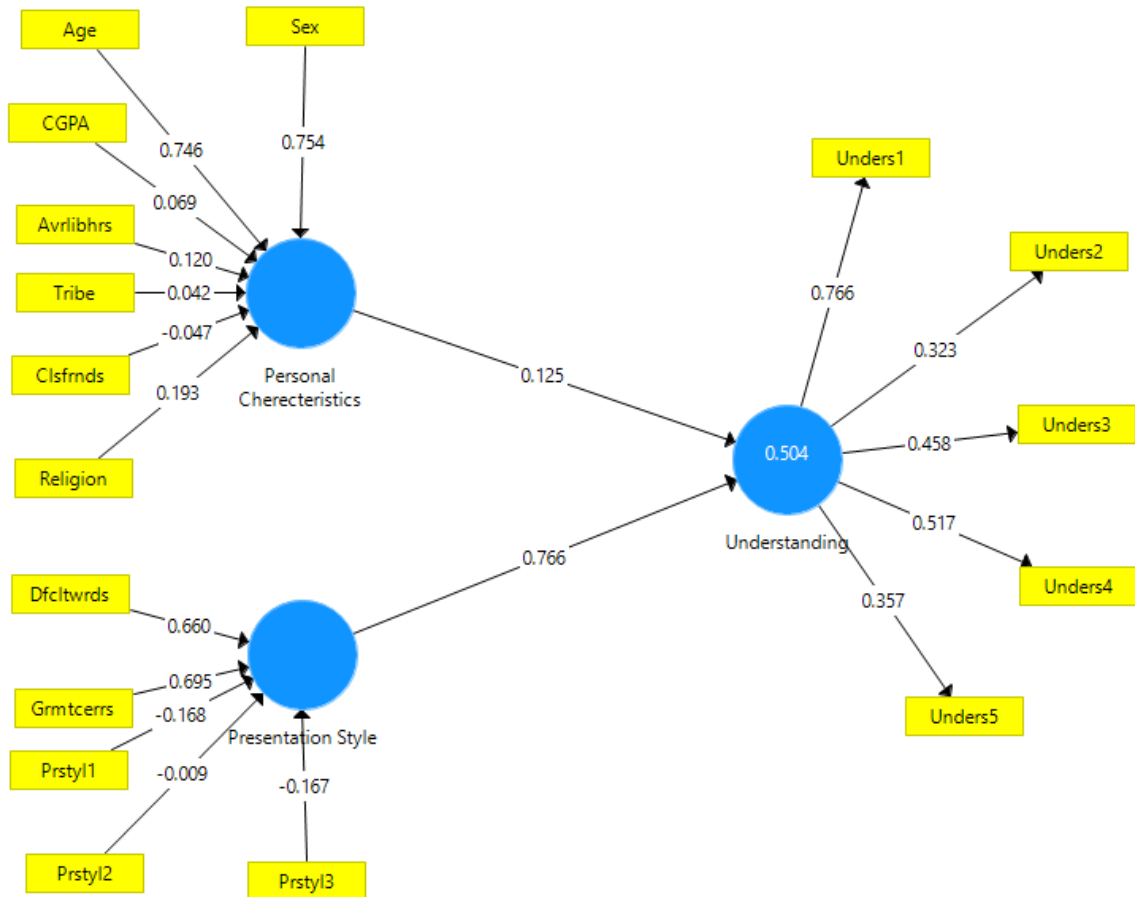


Figure 1 Persistent algorithm of the effect of personal characteristics of learners and presentation styles on understanding of concepts