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The Relationship between Age of Post-Graduate Adult Learning Students and Learning Style Preferences: A Case of Africa International University, Kenya

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Abstract
This paper sought to examine the relationship between age and learning preferences of post- graduate students at Africa International University (AIU). The study employed a descriptive survey design which used cross-sectional approach to data collection. The population of the study consisted of all the 397 post-graduate students at Africa International University at the time of data collection. The sample size used was made up of 199 participants from the post-graduate Diploma, Masters' level and Doctoral programmes. A questionnaire guide was the instrument used to collect information from the participants on their age demographics and their preferences. Statistical Package for Social Sciences (SPSS) was used to analyze the data. A modified version of the Grasha - Riechmann Student Learning Style Scales (GRSLSS) was the learning style inventory that was used to measure the learning preferences. The findings revealed that age was not significantly related to the ways Post-graduate students at Africa International University preferred to learn.
Keywords: Learning style preferences, Age, Post-graduate, Adult learning.

1. Introduction

Researchers of adult learning observe that there had been little investigation and writing about adult learning until early in the twentieth century. Knowles, Holton and Swanson (1998, p. 35) for instance, posit that the idea of the adult as a learner was not taken seriously despite the fact that the famous teachers such as Jesus, Confucius, Aristotle, Socrates, Plato, and Quintilian all taught adults. When Monastic and Cathedral schools were started to teach children in preparation for the priesthood in Europe in the seventh century, a set of assumptions called pedagogy was developed. This is the art and science of teaching children. It became the teaching approach for all ages until after the end of the First World War when the idea of the adult learner as being unique started gaining attention.

The founding of the American Association for Adult Education in 1926 was a major thrust in the field of adult education. It was then that Edward L. Thorndike in 1928 published a book called "*Adult learning"* in which he proved that adults could learn. This gave scientific evidence that adults were capable of learning and had interests and capabilities that differed from those of children (Knowles *et al*., 1998).As presented by Knowles, Holton, Swanson (1998, p.37), Edward C. Lindeman's publication (1926) provided a foundation for a theory about adult learning in which he identified assumptions of adult learning which have stood the test of time by being given a lot of support from other researchers. The assumptions include: Adults are motivated to learn as they experience needs and interests that learning will satisfy, adult orientation to learning is life centred, experience is the richest source for adult learning, adults have a deep need to be self-directing and, individual differences among people increase with age. This explains why age was an important variable in this study. It was between the 1940s and 1950s that the elements required to formulate a comprehensive theory of adult learning were added into the knowledge of human science disciplines (Knowles *et al.,* 1998).

The field of adult education has had many scholars contributing enormously to adult learning theory. Brunner (1959); Kidd (1959); Kempfer (1955); Verner and Booth (1964) addressed the learning problem by adopting child learning theories to the difference in degree among adults. Houle (1961) investigated why adults engage in continuing education and also gave information on how they learn. His research was extended by Tough (1971) who investigated what adults learned, why they learned, how they learned and what help they obtained from learning. Through this study in which he investigated learning projects of sixty-six Canadians, he found out that "highly deliberate efforts to learn take place all around a person, the members of his/her family, his/her neighbours, colleagues, and acquaintances, probably initiated and completed several learning efforts, though he/she may not have been aware of it" (Tough as quoted by Merriam *et al*., 2006, p. 106).

Houle's research was also extended by Knowles who was writing at the same time as Tough (Merriam *et al.,* 2006, p. 106). Knowles proposed a theory of adult learning which he referred to as andragogy. Knowles (1973, p.52) claims to have been introduced to the term by a Yugoslavian adult educator, during a Summer session workshop held at Boston University. Though the word andragogy may have "male only" inclinations, Knowles is using it in more generic and inclusive terms (Knowles, 1980, p.253). The usage is much like the

biblical usage of "man" in Genesis 1:26 or Deuteronomy 8:3. Knowles used the word as an antithesis of pedagogy, though there is no linguistic or grammatical evidence to show that "Andros" means adult in the way that "paidia" would mean children. Thus one is not surprised to notice that Knowles faced a lot of criticism in the choice of andragogy to describe adult learning.

Nevertheless, Knowles continued to pitch the two terminologies in contrast to each other. In his earlier writing he makes statements such as andragogy versus pedagogy or first there was pedagogy then came andragogy (Knowles, 1980). Knowles then proposed the following andragogial principles in which he expounded the meaning of andragogy as the art and science of helping adults learn (Knowles, 1980, p. 43). The principles include: The need for adults to know, why they need to learn, the learner's self-concept, the role of the learners' experience, the orientation to learning, readiness to learn and motivation (Knowles, 1973, p. 61).

Following Knowles' (1973) writing and Toughs' (1971) research, many people turned to the study of adult learning with a renewed zeal. Some people have referred to Knowles as the father of adult education (Gibbs, 1982, p. 181) but others have criticized andragogy, its status as a theory being a major point of contention. Although a majority feel that andragogy has not achieved the status of a theory, it provides assumptions that describe the adult learner (Caffarella*et al.,* 2006, p. 86). Mezirow (1991, p. 199) refers to andragogy as the professional perspective of adult educators. On the other hand Brookfield (1986, p. 120) sees "the concept as a set of assumptions concerning adult learning process from which we can derive a number of injunctions concerning appropriate teaching methods". Brookfield also warns against too ready acceptance of andragogical adult learning principles since the principles of self-directedness, problem solving and the idea of adults seeking immediate application are questionable. For him it is not either… or but both pedagogy and andragogy have their place, at different times and with different age groups (Brookfield, 1986).

1.1 Age and Learning Preferences

The age of the adult learner is a very important factor when it comes to learning preferences. Adult education is quite different from conventional education. Lindeman quoted in Knowles, Holton and Swanson (1998) states that,

> In conventional education the student is required to adjust himself to an established curriculum; in adult education the curriculum is built around the students' needs and interests. Every adult person finds himself in specific situations with respect to his work, his recreation, his family life, his community life etc. - situations which call for adjustments. Adult education begins at this point. Subject matter is brought into the situation, is put to work, when needed. Texts and teachers play a new and secondary role in this type of education; they must give way to the primary importance of the learner.

It is with respect to this that the age of the adult learner becomes an important consideration. This implies that the needs and interests of the adult learner must be identified. The aspect of adult developmental tasks which influence what the adults should learn and how they should learn it, is also brought on board at this point. Harvigurst identified three age groupings in adulthood with distinct developmental tasks. These groups include young adulthood, middle adulthood, and later adulthood. The specific age group of an adult learner, whether it is young, middle or later adulthood will definitely contribute to his learning preference because of the developmental tasks associated with the period. Older adults would prefer familiar teaching strategies, which the younger adults find unexciting.

Previous studies have confirmed that age is a factor influencing learning preferences as seen in the works of Zelazek (1986), Reid (1987) Jones (1993), and Knowles (1980). Naturally it is expected that older adults will be more self-directed as a result of their many social responsibilities, which require them to have personal responsibility.

> The older students in this study, through increased practice in exercising personal responsibility may have been able to transfer their 'real world' self-directed practices and attitudes to the formal learning setting. Involving a major shift in responsibility, young adulthood may be the point at which a major transition is made in self-direction and self-directed learning (Jones, 1993).

Cross (1986) in a discussion on intellectual functioning and ageing, refers to the work by Schaie and Parr who advance a thesis that different stages of life call for different learning abilities. To them young adulthood is the time for achievement followed by middle adulthood, which is a time for responsibility and lastly old age which is a time for re-integration. According to them, most school learning which emphasizes acquisition rather than application or responsibility does not favour older learners.

> The older learners perform better on tasks calling for crystallized intelligence. The educational model that would capitalize on the learning strengths of adults would de-emphasize the processing and acquisition of large amounts of new information, emphasizing instead the development of cognitive interpretation, and application of knowledge (Cross, 1986, p. 163)

This discussion reveals that research has established that age is a major determinant when it comes to learning preferences of adult learners. The author thus sought to further examine this factor based on the Grasha-

Riechmann Student Learning Style Scales (GRSLSS).

2. Materials and Methods

The study focused on post-graduate students at African International University. The study design used was a descriptive survey which used the cross-sectional approach to data collection. The population of the study included all the 397 post-graduate students at Africa International University at the time of data collection. The study sample was made up of 199 participants from the post-graduate Diploma, Masters' level and Doctoral programmes. Questionnaire was the instrument used to collect information from the participants on their age demographics and learning preferences. Statistical Package for Social Sciences (SPSS) was used to analyze the collected data and regression techniques were used for correlation.

A modified version of the Grasha-Riechmann Student Learning Style Scales (GRSLSS) was the learning style inventory that was used to measure the learning preferences. The age factor formed the independent variable while learning preferences represented the dependent variable as depicted in three dimensions of; dependent/independent, avoidant/participant, and competitive/collaborative learning preferences. A Likert scale planned on a 5-point scale with responses ranging from strongly disagree to strongly agree (Gall *et al.,* 2003, p. 229; Nachmias & Nachmias 1996, P. 114).

3. Results and Discussions

3.1 Age of the Respondents

Majority (95.3 %) of the respondents were young adults. At this stage majority are defining careers and seeking economic stability. The high percentage could therefore be attributed to the large numbers of working class adults who have enrolled in post-graduate programmes in the university. Middle age adults accounted for only 4.7 %. In middle adulthood most people are already settled in their careers and this could be attributed to the low percentage of respondents in this category. Table 1 gives a summary of the age of the learners. It can be seen that the majority of the post-graduate students at Africa International University are males aged between 25 and 35.

Table 1: Respondents' age

Age				
		Frequency	**Percent**	**Valid Percent**
Valid	25-35 years	161	95.3	95.3
	36-60 years	8	4.7	4.7
	Above 60 years	0	0	0
	Total	**169**	**100.0**	**100.0**

3.2 Independent/dependent learning

3.2.1 Preference to Working Alone

Table 2: Age and preference to work alone

Variable		**Disagree**		**Undecided**		**Agree**		**Total**	
		Count		**Count**		**Count**		**Count**	
Age	YA	44	28.%	1	1%	111	71.8%	156	100%
	MA	1	12.5%	-	0%	7	87.5%	8	100%
	Discarded							5	
Total		**45**		**1**		**118**		**169**	

R=.032 R^2=.001 critical value =.950 df =2 Confidence level= 0.05

Key

YA-Young Adult

MA-Middle-aged Adult

With regards to the effect of age on the preference of working alone, table 2 indicates that majority of both young and middle-aged adults were likely to prefer independent learning in doing assignments. 71.8 % of the young adults (YA) in the sample and 87.5 % of the middle age adults affirmed the statement that they like to work alone.

The statistical analysis revealed an R value of .032, which is below the critical value of 0.950 at 2 degrees of freedom required to reject the hypothesis of no relationship. Age explained only 0.1 percent of the variance in preference to work alone as shown by R^2 of 0.001, indicating a negligible difference, statistically, among the age groups on preference to work alone.

3.2.2 Studying without Teacher Suggestion

Table 3: Age and studying what is important without teacher suggestion

Variable	Disagree		Undecided		Agree		Total	
	Count		Count		Count		Count	
Age	35	36%	7	4%	114	60%	156	100%
YA								
MA	1	12.5%	1	12.5%	6	75%	8	100%
Discarded							5	
Total	36		8		120		169	

R=.268 R^2=.072 critical value =.950 df = 2 Confidence level = 0.05

Table 3 shows that majority (60% and 75%) of both young adults and middle-aged adults were likely to prefer independent learning, in studying what is important.

The statistical analysis revealed an R value of .268 which is less that .950 at 2 df which is the critical value that is needed to reject the hypothesis of no relationship at 0.05 confidence level. The value of R^2 obtained was .072, suggesting that only 7.2% of the variance in studying what is important can be explained by age, which is a very small percentage.

3.2.3 Completion of Assignments

Table 4: Age and completion of assignments

Variable		Disagree		Undecided		Agree		Total	
		Count		Count		Count		Count	
Age	YA	35	22.5%	7	4.5%	114	73%	156	100%
	MA	1	12.5%	1	12.5%	6	75%	8	100%
	Discarded							5	
	Total	36		8		120		169	

R=.080 R^2=.006 critical value =.950 df =2 Confidence level = 0.05

In relation to age and completing required and optional assignments, it was clear that the young (73%) and middle-aged (75%) adults were likely to prefer independent learning. The statistical analysis revealed an R value of .080, which was smaller than the critical value required for rejecting the null hypothesis. The corresponding R^2 of .006 implied that only 0.6% of the variance in completing optional and required assignments could be accounted for by age, which suggested a very weak association.

3.2.4 Non-provision of information about material covered in exams

Table 5: Age and non-provision of information about material covered in exams

Variable		Disagree		Undecided		Agree		Total	
		Count		Count		Count		Count	
Age	YA	89	56.7%	10	6.4%	58	36.9%	157	100%
	MA	2	25%	-	-	6	75%	8	100%
	Discarded							4	
Total		91		10		64		169	

R=.198 R^2=.039 critical value =.950 df = 2 Confidence level = 0.05

Table 5 shows that young adults were likely to prefer dependent learning, with reference to non-provision of information about material covered in exams, as depicted by 56% of the young adults who did not respond favourably to the statement that students should not be told what material is to be covered in exams. The middle-age adults were likely to prefer independent learning, with reference to non-provision of information about material covered in exams, as shown by 75% of respondents who responded in favour of the statement.

The statistical analysis revealed an R value of .198, which was smaller than the critical value required to reject the hypothesis of no relationship. An R^2 value of .039 suggested that age can explain only 3.9% of the variance in students not being told what material is to be covered in exams, which suggests a negligible relationship.

3.2.5 Non-preference for clear and detailed instruction on completing assignments

Table 6: Age and non-preference for clear and detailed instruction on completing assignments

Variables		Disagree		Undecided		Agree		Total	
		Count		Count		Count		Count	
Age	YA	134	85.9%	1	0.6%	21	13.5%	156	100%
	MA	6	75%	-	-	2	25%	8	100%
	Discarded							5	
Total		140		1		23		169	

R=.052 R^2=.003 critical value =.950 df = 2 Confidence level = 0.05

According to Table 6, it is reported that both young and middle-aged adults were most likely to prefer dependent learning, in relation to non-preference for clear and detailed instruction on completing assignments. This is represented by 85.9% and 75% of young adults and middle-aged adults, respectively who did not affirm the statement that they prefer clear and detailed instruction on completing assignments.

The statistical analysis revealed an R value of .052, which was smaller than the critical value required to reject the hypothesis of no relationship. An R^2 value of .003 suggested that age can explain only 0.3% of the variance in non-preference for clear and detailed instruction on completing assignments, which suggests a very negligible relationship.

3.2.6 Non-preference for close teacher supervision on projects

Table 7: Age and non-preference for close teacher supervision on projects

Variables		**Disagree**		**Undecided**		**Agree**		**Total**	
		Count		**Count**		**Count**		**Count**	
Age	YA	112	72.7%	6	4%	36	23.3%	154	100%
	MA	6	75%	-	-	2	25%	8	100%
	Discarded							7	
Total		**118**		**6**		**38**		**169**	

R=.012 R^2=.000 critical value =.950 df = 2 Confidence level = 0.05

The univariate analysis on age as reported in table 7 revealed that majority (72.7% and 75%) of young and middle-aged adults respectively were likely to prefer dependent learning, with reference to non-preference for close teacher supervision.

The statistical analysis revealed an R value of .012, which was smaller than the critical value required to reject the hypothesis of no relationship. An R^2 value of .000 suggested that age does not contribute to the variance in non-preference for close teacher supervision on projects, which suggests a very negligible relationship.

3.3 Participant/avoidant learning

3.3.1 Doing what is asked of the student

Table 8: Univariate analysis: Age and doing whatever is asked to learn the course content in class

Variable		**Disagree**		**Undecided**		**Agree**		**Total**	
		Count		**Count**		**Count**		**Count**	
Age	YA	19	12.1%	1	0.6%	137	87.3%	157	100%
	MA	2	28.5%	-	-	5	71.5%	7	100%
	Discarded							5	
Total		**21**		**1**		**142**		**169**	

R=.131 R^2=.107 critical value =.950 df = 2 Confidence level = 0.05

With regard to age and doing whatever is asked to learn the course content in class, Table 8 reports that majority of both young and middle-aged adults were likely to prefer participant learning, with reference to compliance in learning, as demonstrated by 87.3% and 71.5% of young and middle-aged adults, respectively who agreed with the assertion that they do whatever is asked to learn the course content.

The statistical analysis revealed an R value of .131, which was smaller than the critical value required to reject the hypothesis of no relationship. The corresponding R^2 value of .107 suggested that age can explain only 10.7% of the variance in doing whatever is asked to learn the course content, which suggests a very weak relationship. The researcher consequently failed to reject the hypothesis and affirmed that there was very negligible difference, statistically, between both ages and compliance in learning.

3.3.2 Student participation

Table 9: Univariate analysis: Age and participating in all aspects of a course

Variable		**Disagree**		**Undecided**		**Agree**		**Total**	
		Count		Count		Count		Count	
Age	YA	12	7.6%	2	1.3%	143	91.1%	157	100%
	MA	-	-	-	-	7	100%	7	100%
	Discarded							5	
Total		**12**		**2**		**150**		**169**	

R=.036 R^2=.001 critical value =.950 df = 2 Confidence level = 0.05

According to table 9, it is clear that majority (91.1%) of young adults were likely to prefer participant learning, in relation to participating in all aspects of a course, while 100% of young and middle-aged adults agreed with the assertion to suggest participant learning. At least 1.3% of young adults were undecided while no middle-aged adult was undecided. 7.6% of young adults were likely to prefer avoidant learning in relation to participating in all aspects of a course, as they disagreed with the assertion that they participate in all aspects of a

course.

The statistical analysis revealed an R value of .036 which was smaller than the critical value required to reject the hypothesis of no relationship. The corresponding R^2 value of .001 suggested that age can explain only 0.1% of the variance in participating in all aspects of a course, which suggests a very negligible relationship.

3.3.3 Interest in Classroom Activities

Table 10: Univariate analysis: Age and finding classroom activities interesting

Variable		**Disagree**		**Undecided**		**Agree**		**Total**	
		Count		Count		Count		Count	
Age	YA	19	12.2%	4	2.6%	133	85.2%	156	100%
	MA	5	62.5%	-	-	3	37.5%	8	100%
	Discarded							5	
Total		24		4		136		169	

R=.264 R^2=.070 critical value =.950 df = 2 Confidence level = 0.05

Table 10 reveals that majority (85.2%) of the young adults were likely to prefer participant learning, while 62.5% of the middle-aged adults were likely to prefer avoidant learning, with reference to interest in classroom activities.

The statistical analysis revealed an R value of .264, which was smaller than the critical value required to reject the hypothesis of no relationship. The corresponding R^2 value of .070 suggested that age can explain only 7% of the variance in finding classroom activities interesting, which suggests a very negligible relationship.

3.3.4 Responsibility to Take Much from a Course

Table 11: Univariate analysis: Age and responsibility to take much from a course

Variable		**Disagree**		**Undecided**		**Agree**		**Total**	
		Count		Count		Count		Count	
Age	YA	10	6.4%	2	1.3%	144	92.3%	156	100%
	MA	1	12.5%	1	12.5%	6	75%	8	100%
	Discarded							5	
Total		**11**		**3**		**150**		**169**	

R=.165 R^2=.027 critical value =.950 df = 2 Confidence level = 0.05

Table 11in relation to age and responsibility to take in as much as possible from a course, revealed that the majority (92.3% and 75%) of the young and middle adulthood respectively were likely to prefer participant learning, with reference to responsibility to take in as much as possible from a course. They asserted that it was their responsibility to take as much as possible from a course.

The statistical analysis revealed an R value of .165, which was smaller than the critical value required for rejecting the null hypothesis. The corresponding R^2 value of .027 suggested that age can explain only 2.7% of the variance in responsibility to take in as much possible from a course, which suggests a very negligible relationship.

3.3.5 Class Attendance

Table 12: Univariate analysis: Age and passion for attending most classes

Variable		**Disagree**		**Undecided**		**Agree**		**Total**	
		Count		Count		Count		Count	
Age	MA	12	7.7%	2	1.3%	142	91%	156	100%
	YA	1	12.5%	-	-	7	87.5%	8	100%
	Discarded							5	
Total		22		2		149		169	

R=.065 R^2=.004 critical value =.950 df = 2 Confidence level = 0.05

Table 12 relates age and passion for attending most classes. Majority (91% and 87.5%) of young adults and middle-aged adults respectively, were likely to prefer participant learning.

The statistical analysis revealed an R value of .065, which was smaller than the critical value required to reject the hypothesis of no relationship. An R^2 value of .004 suggested that age can account for only 0.4% of the variance in passion for attending most classes, which suggests a very negligible relationship.

3.4 Collaborative/Competitive Dimensions of the GRSLSS

3.4.1 Co-operation between the Students and Teachers

Table 13: Univariate analysis: Age and cooperative learning of material between students and teachers

Variable		Disagree		Undecided		Agree		Total	
		Count		Count		Count		Count	
Age	YA	18	1.6%	6	4%	130	84.4%	154	100%
	MA	-	-	-	-	7	100%	7	100%
	Discarded							8	
Total		**18**		**6**		**137**		**169**	

R=.109 R^2=.012 critical value =.950 df = 2 Confidence level = 0.05

With regard to age and cooperative learning of material, majority (84.4% and100%) of young adults and middle-aged adults respectively were likely to prefer collaborative learning. They affirmed to the statement that learning the material was a cooperative effort between students and teachers.

The statistical analysis revealed an R value of .109, which was smaller than the critical value required to reject the hypothesis of no relationship. An R^2 value of .012 suggested that age can explain only 1.2% of the variance in cooperative learning of material, which suggests a very negligible relationship.

3.4.2 Willingness to Help other Students

Table 14: .Univariate analysis: Age and willingness to help other students

Variable		Disagree		Undecided		Agree		Total	
		Count		Count		Count		Count	
Age	YA	31	20.5%	-	-	120	79.5%	151	100%
	MA	1	12.5%	-	-	7	87.5%	8	100%
	Discarded							10	
Total		32		-		127		169	

R=.059 R^2=.003 critical value =.950 df = 2 Confidence level = 0.05

Most (79.5% and 87.5%) of young adults and middle-aged adults were likely to prefer collaborative learning with reference to willingness to help other students. This is depicted in table 14 above.

The statistical analysis revealed an R value of .059, which was smaller than the critical value required for rejection of the hypothesis of no relationship. An R^2 value of .003 suggested that age can explain only 0.3% of the variance in willingness to help other students, which suggests a very negligible relationship.

3.4.3 Sense of Belonging

Table 15: Univariate analysis: Age and team learning in class sessions

Variable		Disagreed		Undecided		Agree		Total	
		Count		Count		Count		Count	
Age	YA	10	6.4%	-	-	146	93.6%	156	100%
	MA	1	12.5%	-	-	7	87.5%	8	100%
	Discarded							5	
Total		11				153		169	

R=.005 R^2=.000 critical value =.950 df = 2 Confidence level = 0.05

Based on the factor of team learning in class sessions, majority (93.6% and 87.5%) of both young and middle-aged adults respectively were likely to prefer collaborative learning. They affirmed that class sessions help them feel like part of a team, where people help each other to learn.

The statistical analysis revealed an R value of .005, which was smaller than the critical value required for rejection of the hypothesis of no relationship. An R^2 value of .000 suggested that age did not account for the variance in team learning in class sessions, which suggests a very negligible relationship.

3.4.4 Competition

Table 16: Univariate analysis: Age and dislike for competition with other students

Variable		Disagree		Undecided		Agree		Total	
		Count		Count		Count		Count	
Age	YA	78	51.3%	6	4%	68	44.7%	152	100%
	MA	1	12.5%	-	-	7	87.55	8	100%
	Discarded							9	
Total		79		6		75		169	

R=.211 R^2=.044 critical value =.950 df = 2 Confidence level = 0.05

In relation to dislike for competition with other students, most (87.5%) of the middle-aged adults were likely to prefer collaborative learning. these category of students agreed that they did not like competing with other students for good grades.

The statistical analysis revealed an R value of .211, which was smaller than the critical value required

to reject the hypothesis of no relationship. The corresponding R^2 value of .044 suggested that age can explain only 4.4% of the variance in dislike for competition with other students, which suggests a very negligible relationship.

4. Conclusion

The age of post-graduate students at Africa International University has no significant relationship with the ways they prefer to learn based on the regression analyses. Age is very marginally related to learning preferences and this cautions against categorizing certain learners based on the age variable. The learning preferences oscillated between independent and dependent learning. Majority of the respondents preferred participant learning. There was switching between the styles, and inferences were made that this depended on the learning situation for independence/dependent and the collaborative/competitive dimensions.

5. Recommendations

Post-graduate students at Africa International University may be inclined to participative, both independent and dependent and collaborative learning preferences and therefore teaching strategies, such as group discussion, class participation, class assignments, class presentations, individual assignments, guided projects and lectures may be encouraged.

The age variable is not significantly related to learning preferences of Post-graduate students. It should therefore not be used as a major determinant of learning preferences.

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