



## ANALYZING THE IMPACT OF FLUENCY, FLEXIBILITY, ORIGINALITY AND CREATIVITY OF ICT TOOLS DURING CLASSROOM TEACHING AND TECHNOLOGICAL STUDENTS OF RAJASTHAN

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### Abstract

*Education may be the greatest piece of triumphant foundation to emerge from the modern age. twentieth century nations have prospered for the clarification that they recognized and used practical methods for guidance and work of the comprehensive local area. The world is developing. Advancement makes us more splendid. In today's informative technique, advancement isn't only an instrument, yet moreover a resource for getting to information. For a surprisingly long time, new ways have been used to advancement into learning measure. This paper deals with the fundamental effect on imagination with showing technique through information and correspondence development instruments.*



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### I. Introduction

Proof of the groundbreaking impacts of data and correspondence innovation (ICT) is broadly noticeable in the changing ways that individuals all throughout the planet live and work. Gigantic changes in the habits that people access information and interface with each other have set up structures for wide changes in the public field (Lim et al. 2013). As a result, there will be changes in the tutoring expected to design adolescents for full participation as inhabitants (Hawkridge 1990; Spector 2010). The weighty effects of ICT in many pieces of present day life can be seen in advancing instances of correspondence and business development similarly as in the cycles and aftereffects of gathering. These enhancements have added to the "fixing" related with globalization (Friedman 2006) and began changes in the synthesis and requirements of the workforce (Milanovic 2014). Master and organization occupations have ordinarily been safeguarded from the irksome effects of ICT considering the way that they required insightful or manual capacities that were not replaceable comparably as the capacities typically used in manufacturing. Mechanical innovation that will involve a fourth mechanical surprise after the prior revolts subject to the unpreventable gathering of steam power, force, and devices (Peters 2017). Headways in data science open

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the chances for ICT to fill in for individuals in a combination of nonroutine scholarly tasks while moves in distinguishing and control are engaging mechanical innovation to play out a growing extent of manual endeavors. Some battle for the meaning of human culture expecting its fitting part in causing the future instead of enduring the assurance of results moving from mechanical determinism (Wajcman 2017). Regardless of how much a fourth present day change catalyzed by ICT through AI and progressed mechanics changes work and how much work stays open to individuals, it has all the earmarks of being certain that there will be changes in both the quality and measure of turn out required for society to work.

## II. Literature Survey

Itamar S. (2008) suggested that e-Learning progressions further foster the high level training teaching and learning experience. Revelations of accurate investigation ponders and surveys contemplated different appearance procedures, shown the impact of taking on e-Learning advancements on the educating and learning experience. Improving the instructive projects with e-Learning-based courses further creates efficiency, without reducing educational feasibility. Issroff K. et.al (2002) assessed an extent of structures and inspected impacts on taking in progresses from the associated fields of man-made thinking in guidance (AIED) and human-PC affiliation (HCI). Two social events of speculations have been recognized. The principle gathering is related to administer decisions about the arrangement of learning materials. Hannafin R.D. (1993) broke down the reasons for some simple and assistant instructors contradicting PCs and discussed the changing position of teachers who used computer teaching. Vintere A. (2009) pushed toward the issue by exploring and evaluating the sensible composition for the improvement of the methodological reason of assessment. Czerniewicz L. (2008) considered the field of educational advancement to the extent its inclination and its uniqueness reliant upon the viewpoints on researchers and specialists in the real field. Ely D.P. (1990) discussed the conditions for execution of informative advancement improvements. Eight conditions that work with the gathering, execution, and association of informative advancement improvements have been portrayed. Employments of these conditions remember informative development for Indonesia, Chile, and Peru was evaluated, and leads for productive execution of headways were analyzed. Gau r A. et.al. (2012) investigated the manners by which the qualities of data and correspondence innovation (ICT) can be utilized in accomplishment of objective. The paper centers around the aspects of and challenges in giving admittance to widespread rudimentary schooling for kids from socially

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more vulnerable areas in India. Mohanti S.P. et.al (2012) examines about the meaning of home foundation in little youngster direction to proficiency and to training. An example of 120 college understudies from khurda and cutack areas of India were taken and presumed that the data and correspondence innovation (ICT) ability is related with parental occupation and instruction. Youssef A. B. (2008) analyzed the connection between the utilization of data and communication technology (ICT) and understudy execution in advanced education. The reciprocal clarifications zeroed in the roundabout impacts of data and communication technology (ICT) on standard illustrative components that cause contrasts in understudies' presentation and furthermore upheld that data and communication technology (ICT) need an adjustment of the association of advanced education. Pramila D. (2006) fostered a model for assessing the capacity of data and communication technology (ICT)- based methods of correspondence like video broadcast, sound conferencing, video conferencing, the Web, Email, WebCT-based landing pages, text visit, mail and conversation sheets to cultivate a compelling learning climate, by upgrading tele-presence, adaptability, association and coordinated effort for distance students at the University of the South Pacific (USP).

### III. ANALYSIS AND INTERPRETATIONS

**Fluency:** The analysis of fluency of the perspective teachers and students of technical education of Rajasthan shows that the 23% of the respondents of controlled group (n=85) come under the category of high achievers (HA), whereas only 10% of the respondents of uncontrolled group (n=237) come under the category of high achievers (HA).

**Table 1.1 Chi-Square Crosstabulation of fluency of the perspective teachers and students of technical education of Rajasthan**

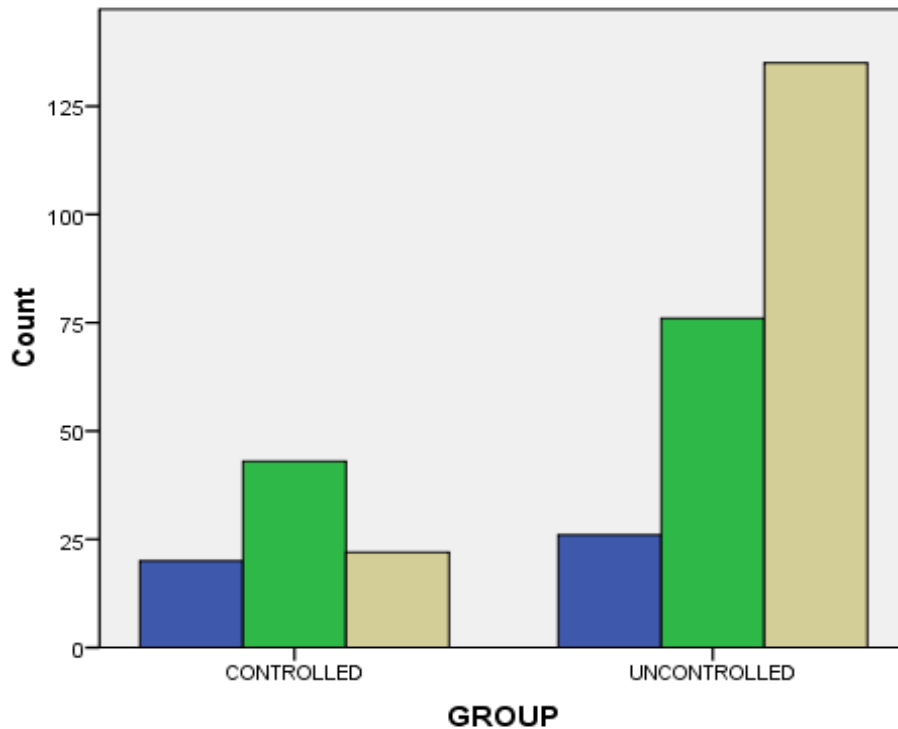
		ACHIEVEMENT				Total
		1_HIGH	2_MEDIUM	3_LOW		
GROUP	CONTROLLED	Count	20	43	22	85
		Expected Count	12.1	31.4	41.4	85.0
	UNCONTROLLED	Count	26	76	135	237
		Expected Count	33.9	87.6	115.6	237.0
Total		Count	46	119	157	322
		Expected Count	46.0	119.0	157.0	322.0

**Table 1.2 Chi-Square Analysis of fluency of the perspective teachers and students of technical education of Rajasthan**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.108 <sup>a</sup>	2	.000
Likelihood Ratio	25.787	2	.000
N of Valid Cases	322		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.14.

The 50% of the respondents of controlled group come under the category of medium achievers (MA), and 32% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 25% of the respondents of controlled group come under the category of low achievers (LA), whereas 56% of the respondents of uncontrolled group come under the category of low achievers (LA). It is inferred from the computed results that the use of information and communication technologies (ICT) plays a key role in improving the Fluency of the perspective teachers and students of technical education of Rajasthan State. The calculated values of Chi-Square analysis (Chi-Square=25, Table Value=5 and df=2) has demonstrated that the use of information and communication technologies (ICT) has a significant effect on Fluency of the perspective teachers and students of technical education of Rajasthan State. Table 1.1 shows the crosstabulation of Fluency of the perspective teachers and students of technical education of Rajasthan State. Table 4.18 shows the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. Figure 1.1 shows the bar chart indicating the response of High, Medium and Low achievement groups in Fluency of the perspective teachers and students of technical education for uncontrolled and controlled group of Rajasthan state. Figure 1.1 shows the graphical response of information and communication technology (ICT) on Fluency of perspective teachers and students of technical education of Rajasthan for controlled and uncontrolled group comprising of 85 and 237 students respectively.



**Figure 1.1 Bar Chart of fluency of the perspective teachers and students of technical education of Rajasthan**

It is inferred from the bar chart that 20 students came under the category of high achievers (HA), 43 students came under the category of medium achievers (MA) and 22 students came under the category of low achievers (LA) out of 85 students of controlled group comprising of perspective teachers and students of technical education of Rajasthan. On the divergent side, 26 students came under the category of high achievers (HA), 76 students came under the category of medium achievers (MA) and 135 students came under the category of low achievers (LA) out of 237 students of uncontrolled group comprising of perspective teachers and students of technical education of Rajasthan.

**Flexibility:** The analysis of flexibility of the perspective teachers and students of technical education of Rajasthan shows that the 41% of the respondents of controlled group (n=85) come under the category of high achievers (HA), whereas only 13% of the respondents of uncontrolled group (n=237) come under the category of high achievers (HA).

**Table 1.3 Chi-Square Crosstabulation of flexibility of the perspective teachers and students of technical education of Rajasthan**

		ACHIEVEMENT				
			1_HIGH	2_MEDIUM	3_LOW	Total
GROUP	CONTROLLED	Count	35	25	25	85
		Expected Count	17.7	25.1	42.2	85.0
	UNCONTROLLE D	Count	32	70	135	237
		Expected Count	49.3	69.9	117.8	237.0
Total		Count	67	95	160	322
		Expected Count	67.0	95.0	160.0	322.0

**Table 1.4 Chi-Square Analysis of flexibility of the perspective teachers and students of technical education of Rajasthan**

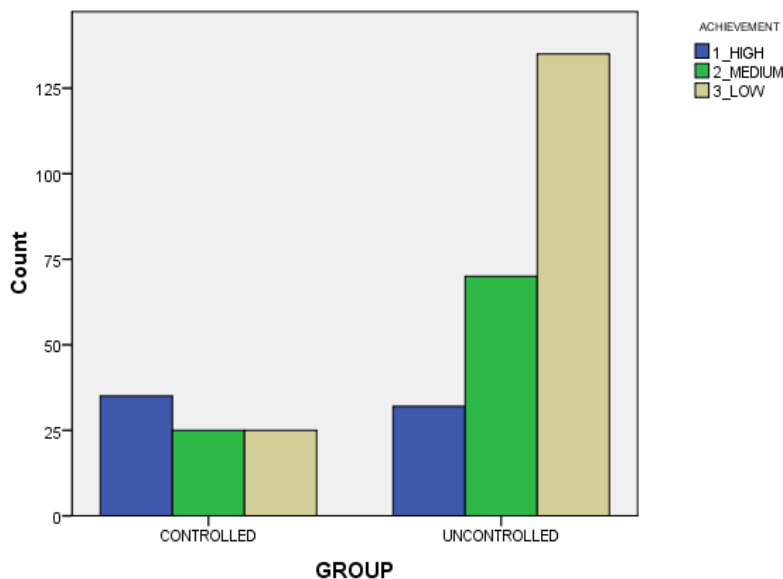
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.584 <sup>a</sup>	2	.000
Likelihood Ratio	30.762	2	.000
N of Valid Cases	322		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.69.

The 29% of the respondents of controlled group come under the category of medium achievers (MA), and 29% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 29% of the respondents of controlled group come under the category of low achievers (LA), whereas 56% of the respondents of uncontrolled group come under the category of low achievers (LA). It is inferred from the computed results that the use of information and communication technologies (ICT) plays a key role in improving the Flexibility of the perspective teachers and students of technical education of Rajasthan State. The calculated values of Chi-Square analysis (Chi-Square=32, Table Value=5 and df=2) has demonstrated that the use of information and communication technologies (ICT) has a significant effect on Flexibility of the perspective teachers and students of technical education of Rajasthan State. Table 4.19 shows the crosstabulation of Flexibility of the perspective teachers and students of technical education of Rajasthan State. Table 1.4 shows the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. Figure 1.2 shows the bar chart indicating the response of High, Medium and Low achievement groups in Flexibility of the perspective teachers and students of technical education for uncontrolled and controlled group of Rajasthan state. Figure 1.2 shows the graphical response of information and communication technology (ICT) on Flexibility of

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perspective teachers and students of technical education of Rajasthan for controlled and uncontrolled group comprising of 85 and 237 students respectively.



**Figure 1.2 Bar Chart of flexibility of the perspective teachers and students of technical education of Rajasthan**

It is inferred from the bar chart that 35 students came under the category of high achievers (HA), 25 students came under the category of medium achievers (MA) and 25 students came under the category of low achievers (LA) out of 85 students of controlled group comprising of perspective teachers and students of technical education of Rajasthan. On the divergent side, 32 students came under the category of high achievers (HA), 70 students came under the category of medium achievers (MA) and 135 students came under the category of low achievers (LA) out of 237 students of uncontrolled group comprising of perspective teachers and students of technical education of Rajasthan.

**Originality:** The analysis of Originality of the perspective teachers and students of technical education of Rajasthan shows that the 18% of the respondents of controlled group (n=85) come under the category of high achievers (HA), whereas only 31% of the respondents of uncontrolled group (n=237) come under the category of high achievers (HA). The 43% of the respondents of controlled group come under the category of medium achievers (MA), and 34% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 37% of the respondents of controlled group come under the category of low achievers (LA), whereas 34% of the respondents of uncontrolled group come under the category of low achievers (LA).

**Table 1.5 Chi-Square Crosstabulation of Originality of the perspective teachers and students of technical education of Rajasthan**

		ACHIEVEMENT				
			1_HIGH	2_MEDIUM	3_LOW	Total
GROUP	CONTROLLED	Count	16	37	32	85
		Expected Count	23.8	31.1	30.1	85.0
	UNCONTROLLED	Count	74	81	82	237
		Expected Count	66.2	86.9	83.9	237.0
Total		Count	90	118	114	322
		Expected Count	90.0	118.0	114.0	322.0

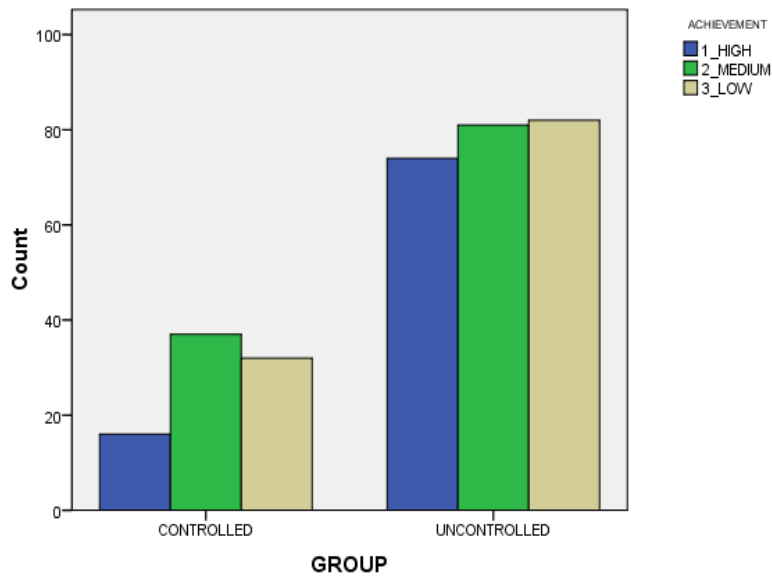
**Table 1.6 Chi-Square Analysis of Originality of the perspective teachers and students of technical education of Rajasthan**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.099 <sup>a</sup>	2	.078
Likelihood Ratio	5.342	2	.069
N of Valid Cases	322		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.76.

It is inferred from the computed results that the use of information and communication technologies (ICT) do not play any role in improving the Originality of the perspective teachers and students of technical education of Rajasthan State. The calculated values of Chi-Square analysis (Chi-Square=5, Table Value=5 and df=2) has demonstrated that the use of information and communication technologies (ICT) has no significant effect on Originality of the perspective teachers and students of technical education of Rajasthan State. Table 1.3 shows the crosstabulation of Originality of the perspective teachers and students of technical education of Rajasthan State. Table 1.6 shows the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. Figure 1.3 shows the bar chart indicating the response of High, Medium and Low achievement groups in Originality of the perspective teachers and students of technical education for uncontrolled and controlled group of Rajasthan state. Figure 1.4 shows the graphical response of information and communication technology (ICT) on Originality of perspective teachers and students of technical education of Rajasthan for controlled and uncontrolled group comprising of 85 and 237 students respectively.





**Figure 1.3 Bar Chart of Originality of the perspective teachers and students of technical education of Rajasthan**

It is inferred from the bar chart that 16 students came under the category of high achievers (HA), 37 students came under the category of medium achievers (MA) and 32 students came under the category of low achievers (LA) out of 85 students of controlled group comprising of perspective teachers and students of technical education of Rajasthan. On the divergent side, 74 students came under the category of high achievers (HA), 81 students came under the category of medium achievers (MA) and 82 students came under the category of low achievers (LA) out of 237 students of uncontrolled group comprising of perspective teachers and students of technical education of Rajasthan.

**Creativity:** The analysis of Creativity of the perspective teachers and students of technical education of Rajasthan shows that the 21% of the respondents of controlled group (n=85) come under the category of high achievers (HA), whereas only 4% of the respondents of uncontrolled group (n=237) come under the category of high achievers (HA). The 50% of the respondents of controlled group come under the category of medium achievers (MA), and 39% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 28% of the respondents of controlled group come under the category of low achievers (LA), whereas 56% of the respondents of uncontrolled group come under the category of low achievers (LA).

**Table 1.7 Chi-Square Crosstabulation of Creativity of the perspective teachers and students of technical education of Rajasthan**

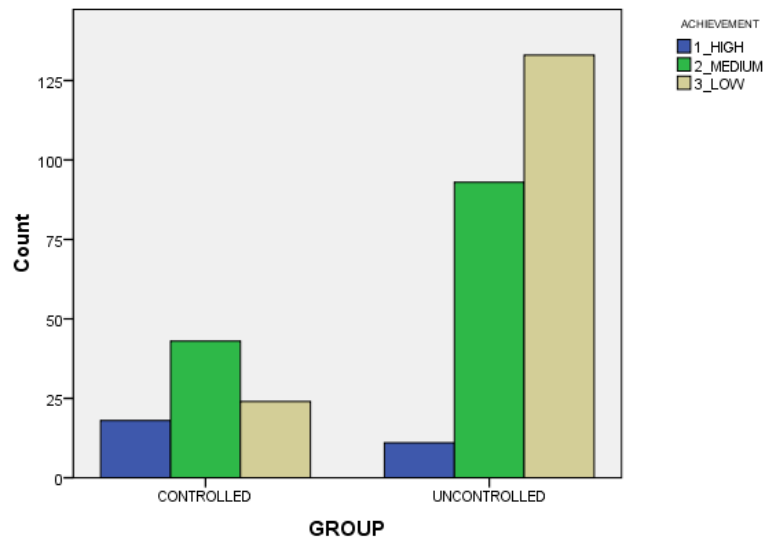
		ACHIEVEMENT			Total	
		1_HIGH	2_MEDIUM	3_LOW		
GROUP	CONTROLLED	Count	18	43	24	85
		Expected Count	7.7	35.9	41.4	85.0
	UNCONTROLLED	Count	11	93	133	237
		Expected Count	21.3	100.1	115.6	237.0
Total		Count	29	136	157	322
		Expected Count	29.0	136.0	157.0	322.0

**Table 1.8 Chi-Square Analysis of Creativity of the perspective teachers and students of technical education of Rajasthan**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.876 <sup>a</sup>	2	.000
Likelihood Ratio	29.207	2	.000
N of Valid Cases	322		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.66.

It is inferred from the computed results that the use of information and communication technologies (ICT) plays a key role in improving the Creativity of the perspective teachers and students of technical education of Rajasthan State. The calculated values of Chi-Square analysis (Chi-Square=30, Table Value=5 and df=2) has demonstrated that the use of information and communication technologies (ICT) has a significant effect on Creativity of the perspective teachers and students of technical education of Rajasthan State. Table 1.7 shows the crosstabulation of Creativity of the perspective teachers and students of technical education of Rajasthan State. Table 1.8 shows the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. Figure 1.4 shows the bar chart indicating the response of High, Medium and Low achievement groups in Creativity of the perspective teachers and students of technical education for uncontrolled and controlled group of Rajasthan state. Figure 1.4 shows the graphical response of information and communication technology (ICT) on Creativity of perspective teachers and students of technical education of Rajasthan for controlled and uncontrolled group comprising of 85 and 237 students respectively.



**Figure 1.4 Bar Chart of Creativity of the perspective teachers and students of technical education of Rajasthan**

It is inferred from the bar chart that 18 students came under the category of high achievers (HA), 43 students came under the category of medium achievers (MA) and 24 students came under the category of low achievers (LA) out of 85 students of controlled group comprising of perspective teachers and students of technical education of Rajasthan. On the divergent side, 11 students came under the category of high achievers (HA), 93 students came under the category of medium achievers (MA) and 133 students came under the category of low achievers (LA) out of 237 students of uncontrolled group comprising of perspective teachers and students of technical education of Rajasthan.

#### **IV. Conclusion**

Information and communication technology (ICT) assumes a significant part in upgrading the personal satisfaction, including schooling. This examination work is a significant repercussion to give a proof to the powerful utilization of Information and communication technology (ICT) devices for instructive seasons. The analysis of fluency of the perspective teachers and students of technical education of Rajasthan shows that the 23% of the respondents of controlled group (n=85) come under the category of high achievers (HA), whereas only 10% of the respondents of uncontrolled group (n=237) come under the category of high achievers (HA). The analysis of flexibility of the perspective teachers and students of technical education of Rajasthan shows that the 41% of the respondents of controlled group (n=85) come under the category of high achievers (HA), whereas only 13% of the

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respondents of uncontrolled group (n=237) come under the category of high achievers (HA). The analysis of Originality of the perspective teachers and students of technical education of Rajasthan shows that the 18% of the respondents of controlled group (n=85) come under the category of high achievers (HA),

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