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## MULTIPLE INTELLIGENCES: A NEED OF THE DAY IN DIGITAL ENVIRONMENTAL ERA

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### Abstract

*In the present digital environment theoretical knowledge is not sufficient for the library and Information scientists, so practical exposure is to hope up with this environment. It is essential to have knowledge on some of the Multiple Intelligences such as Interpersonal, intrapersonal, verbal –linguistics. This paper has been made an attempt to know the intelligence among the younger professionals in the filed of Library and Information Science who is undergoing Library Science.*

**Keywords:** Intelligences, Digital Environment, Library Professional

### 1. INTRODUCTION

The concept of intelligence, a very old one, has been employed in the most varied ways over the centuries. This century, primarily ordinary individuals have used the word “intelligence” in an effort to describe their own mental powers as well as those of other persons. Consistent with ordinary language usage, “intelligence” has been deployed in anything but a precise manner. Forgetting about homonyms, which denote the gathering of information; individuals living in the West were called “intelligent” if they were quick or eloquent or scientifically astute or wise. In other cultures, the individual who was obedient, or well behaved, or quiet, or equipped with magical powers, may well have been referred to by terms, which have been translated as “intelligent”. This paper has been made an attempt to know the intelligence among the younger professionals in the filed of Library and Information Science. For which very few intelligence concepts were taken into study and presented.

### 2. DEFINITIONS

There are three different definitions for Intelligence as follows:<sup>1</sup>

- Intelligence is the ability to solve problems. This is the core feature involved in IQ tests – problem solving and logical reasoning to determine the one right answer.
- Intelligence, however, is not limited to the capacity for rapid, logical problem-solving and convergent thinking. Intelligence includes the abilities to create products and to provide valuable services. This expands our understanding of intelligence to include divergent thinking and interpersonal expertise. Original thinking outside the conventional, academic realms can be easily overlooked, disparaged, and neglected in school, at home, and in the workplace.
- Intelligence isn't something that only happens “in the mind” but it also includes the materials and the values of the situation where and how the thinking occurs. The availability of appropriate materials and the values of any particular context or culture will thus have a significant impact on the degree to which specific abilities will be activated, developed, or discouraged. This is sometimes referred to as situated or distributed intelligence or contextual thinking.

The unitary concept of general intelligence symbolized as (g) embodied in the IQ score has been with us for nearly 100 years as a recognized theoretical and scientific verity.

Construct of a single overarching general ability is widely accepted. Corno et al (2002)<sup>2</sup> report that there are approximately 120 different measures of general ability. Yet they also acknowledge that not all scholars are in agreement, with this concept.

Both Gardner and Sternberg<sup>2</sup> advocate that intelligence should not be reduced to a single overarching construct. In 1983 Gardner<sup>3</sup> first identified seven distinct intelligences. Further Gardner<sup>3</sup>, in 1999 identifies an eight intelligence. Sternberg (1998)<sup>4</sup> argues that that people posses three independent abilities

- analytic (judging, comparing, contrasting, etc.),
- creative (inventing, discovering, imaging, etc.), and
- practical (applying, implementing, using, etc.).

### 3. PRESENT SCENARIO

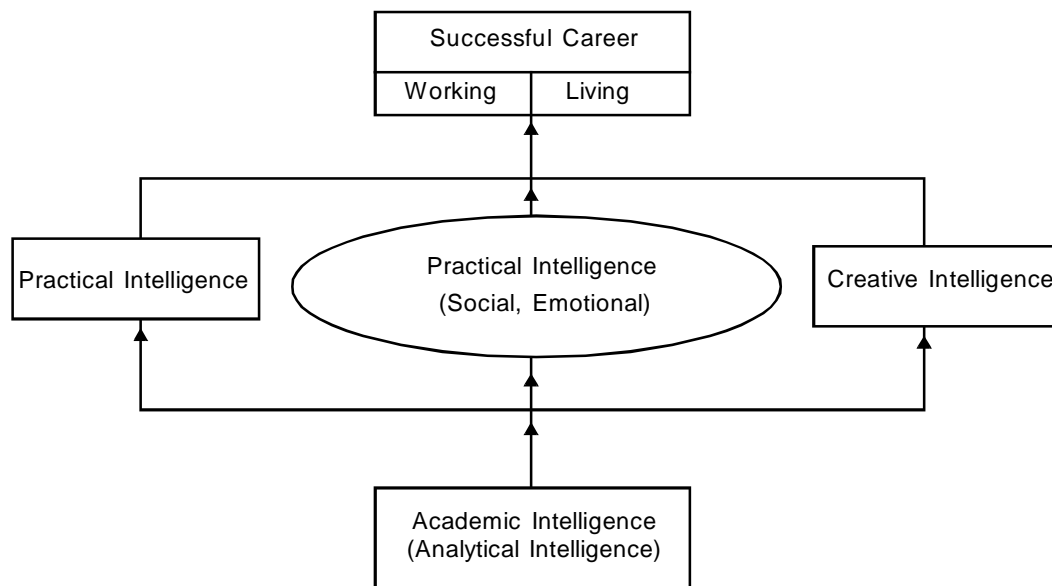


Fig.1 Successful career and successful intelligence.

The relationship between a successful career and a successful intelligence, in which personal intelligence is the core component

Figure illustrates the following:

- There are four types of intelligence that lead to a successful career, the traditional intelligence (ie. Analytical intelligence) and the other three nonacademic intelligence –personal intelligence, practical intelligence, and creative intelligence. A balanced development among these four types of intelligence can make a successful career and fulfillment of life.
- There is a close relationship between academic intelligence and achievement in different academic subjects. Different kinds of academic intelligence can influence achievement in different subjects, such as linguistic intelligence for literature, logical-mathematical intelligence for math and science,

musical intelligence for music, spatial intelligence for fine arts, and bodily-kinesthetic for sports, dancing, and drama.

- Personal intelligence could be referred to as social intelligence or emotional intelligence, which involves intrapersonal intelligence and interpersonal intelligence.
- Practical intelligence belongs to the field of cognition. It is an ability to apply knowledge to daily life or problem solving.
- Creative intelligence includes creative thinking (cognition) and creative attitude (feeling). Creative intelligence can be integrated with the executive ability of practical intelligence to produce stronger power or concrete effect, such as a creative problem solving.
- Academic intelligence is the basic requirement of a successful career, but it is not sufficient. A successful career (a successful job and contented life) requires a balanced development of the above four types of intelligence. On the other hand, personal intelligence is the core of achieving a successful career and the catalyst for the other constructs of intelligence.

During the past century, there has been considerable movement on the “intelligence front,” and this trend shows no sign of abating. In this study attempt has been made to briefly describe three historical steps, or phases, in the development of thinking about intelligence, focusing in particular on work inspired by the Theory of Multiple Intelligence.

#### **4. MULTIPLE INTELLIGENCES**

For this study, three multiple intelligences are taken and the same has been explained:

##### **4.1. Verbal/Linguistic - Word Smart**

The ability is to think in words and use language to express ideas. This intelligence includes the ability to manipulate the syntax or structure of language, the phonology or sounds of language, the semantics or meanings of language and the pragmatic dimensions or practical uses of language.

##### **4.2. Interpersonal - People Smart**

The ability is to understand and interact with other people in a variety of ways. This intelligence involves sensitivity to facial expressions, voice, and gestures; the capacity for discriminating among many different kinds of interpersonal cues; and the ability to respond effectively to those cues in some pragmatic way.

##### **4.3. Intrapersonal - Self Smart**

The ability is to understand your feelings and who you are in the world. This intelligence includes having an accurate picture of one’s strengths and limitations; awareness of inner moods, intentions, motivations, temperaments, and desires; and the capacity for self-discipline, self understanding, and self-esteem.

Further it is also studied the availability of this intelligence among the Library and Information students.

#### **5. OBJECTIVES**

- To identify the multiple intelligence among the library Science students.
- To identify the MI among Post Graduate students
- To identify the MI among the between Male and Female students

## 6. HYPOTHESES

1. All the library and Information Science students are having equal amount of Multiple Intelligence.
2. Post Graduate students in Library and Information Science are having more MI than UG students
3. Female Library and Information Science students are having more MI than male students.

## 7. DATA ANALYSIS

### 7.1 Sample Size

A total of 255 have responded out of 300 Library Science students considered for the study in Correspondence Education, University of Madras. The students were grouped into two categories and representing those students grouped and same is shown in Table 1, among the respondents 52.2% (133) drawn from BLIS students, 47.8% (122) from MLIS students.

Table 1. Course Studying of Respondents

S.No	Course Studying	Frequency	Percent
1	BLIS	133	52.2
2	MLIS	122	47.8
	Total	255	100.0

### 7.2 Classification of Respondents by Age

The age of the respondents were grouped into three categories as shown in Table 2. From the Table 2, it is seen that 61.6% (157) belongs to the age group of between 25-29 years; followed by 32.2% (82) fall in the age group 20-24. The analysis reveals that 25-29 age group students higher under study

Table 2. Respondents by Age wise

S.No	Age group	Frequency	Percent
1	20-24	82	32.2
2	25-29	157	61.6
3	30-34	16	6.3
Total	255	100.0	

### 7.3 Classification of Respondents by Sex

The sample students have been classified by sex and the analysis is presented in the Table 3. In the Table 3, it is observed that 54.1% (138) of Female. It is interesting to note that 45.9% (117) of students by male. However the women participation is considerably equal to male.

Table 3. Respondents by Sex wise

S.No	Sex	Frequency	Percent
1	Male	117	45.9
2	Female	138	54.1
	Total	255	100.0

### 7.3 Classification of Respondents by Basic Qualifications

The respondents' basic qualifications were grouped in three categories as shown in *Table 4*. It is seen from the *Table 4*, that more than fifty per cent of the respondents 61.2% (156) were BA, followed by 29.8% (76) are B.Sc qualified students and B.Com is 9% (23).

Table 4. Basic degree qualifications of respondents

S.No	Qualifications	Frequency	Percent
1	BA	156	61.2
2	B.Sc	76	29.8
3	B.Com	23	9.0
	Total	255	100.0

### 7.4 Classification of Respondents by Post Graduate Qualifications

The respondents' PG degrees were grouped in three categories as shown in *Table 5*. It is seen from the *Table 5*, which more than fifty per cent of the respondents 62.5% (159) were MA, followed by 28.2% (72) are M.Sc qualified students and No PG degree is 9.4% (24).

Table 5. PG Degree Qualifications of respondents

S.No	Qualifications	Frequency	Percent
1	MA	159	62.4
2	M.Sc	72	28.2
3	UG	24	9.4
	Total	255	100.0

### 7.5 Marital Status of Respondents

The marital status normally will have a impact on intelligence. Hence the marital status has also been analyzed.

Table 6. Marital status of respondents

S.No	Marital status	Frequency	Percent
1	Single	183	71.8
2	Married	72	28.2
	Total	255	100.0

The table 6 shows the marital status of the respondents. It is seen from table that 71.8% (183) respondents were 'single' and 28.2% (72) were 'married'.

## 7.6 Verbal/Linguistic Intelligence

Table 7. Verbal/Linguistic Intelligence

Verbal/Linguistic Intelligence		Degree				Total	
		BLIS		MLIS		No.	%
		No.	%	No.	%		
Books are very important	Agree	130	51.0%	17	6.7%	147	57.6%
	Strongly Agree	3	1.2%	105	41.2%	108	42.4%
I read something almost every day that isn't related to my work.	Agree	130	51.0%	35	13.7%	165	64.7%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
I pay attention to billboards and advertisements	Agree	130	51.0%	35	13.7%	165	64.7%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
I often listen to the radio and cassette tapes of lectures and book	Disagree			18	7.1%	18	7.1%
	Agree	66	25.9%	9	3.5%	75	29.4%
	Strongly Agree	67	26.3%	95	37.3%	162	63.5%
I enjoy doing crossword puzzles	Disagree			18	7.1%	18	7.1%
	Agree	66	25.9%	9	3.5%	75	29.4%
	Strongly Agree	67	26.3%	95	37.3%	162	63.5%
Putting things in hierarchies makes sense to me	Disagree	64	25.1%	8	3.1%	72	28.2%
	Agree	66	25.9%	27	10.6%	93	36.5%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
I consider myself a good letter writer	Agree	130	51.0%	17	6.7%	147	57.6%
	Strongly Agree	3	1.2%	105	41.2%	108	42.4%
If I hear a song a few times, I can usually remember the words	Disagree			18	7.1%	18	7.1%
	Strongly Agree	133	52.2%	104	40.8%	237	92.9%
I enjoy categorizing things by . common traits	Disagree	67	26.3%	95	37.3%	162	63.5%
	Agree	66	25.9%	27	10.6%	93	36.5%
I have written something that I like	Disagree	3	1.2%	87	34.1%	90	35.3%
	Agree	130	51.0%	17	6.7%	147	57.6%
	Strongly Agree			18	7.1%	18	7.1%

The levels of Verbal/Linguistic intelligence among the respondents were analysed among the respondents through set of ten questions. The respondents were asked to mark, whether they agree, disagree and strongly agree. The respondents tabulate the results in Table 7 out of ten questions the following three questions were either 'agree' or 'strongly agree'

- Books are very important
- Reading something almost every day
- Pay attention to bill boards and advertisements
- Consider them as good letter writer

They respondents were disagreed in the following questions and the disagree percent is minimal if less than 10% in the following questions.

- I often listen to the radio and cassette tapes of lectures and book
- Putting things in hierarchies makes sense to me
- I enjoy doing crossword puzzles
- If I hear a song a few times, I can usually remember the words

It is seen from the table that the respondents marked agree ratios (between 40% and 50%) in the following questions.

- Categorizing things by common traits (63.5%)
- Writing something that they like (35.3%)

	Tab	pct		Row	
			1	2	Total
Disagree	0	134	244	378	
		52.5	95.7	148.2	
Agree	1	914	193	1107	
		358.4	75.7	434.1	
Strongly Agree	2	282	783	1065	
		110.6	307.1	417.6	
Column		133	122	255	
Total		52.2	47.8	100.0	

Percents and totals based on respondents

255 valid cases; 0 missing cases

It is seen from the table 8, that the necessity for Verbal/Linguistic intelligence of strongly agreed both BLIS and MLIS 1065 rating points. Similarly 1107 rating points provided for agree. Only 378 rating points provided by disagree for this group.

## 7.8 Intrapersonal Intelligence

Table 9. Intrapersonal Intelligence

Intrapersonal Intelligence		Degree				Total	
		BLIS		MLIS No.			
		No.	%	No.	%		
I regularly spend time meditating	Disagree			18	7.1%	18	7.1%
	Agree	3	1.2%	87	34.1%	90	35.3%
	Strongly Agree	130	51.0%	17	6.7%	147	57.6%
I consider myself independent	Agree	130	51.0%	35	13.7%	165	64.7%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
I keep a journal and record my thoughts	Disagree	67	26.3%	113	44.3%	180	70.6%
	Strongly Agree	66	25.9%	9	3.5%	75	29.4%
I would rather create my own lessons than use material directly from the book	Agree	133	52.2%	122	47.8%	255	100%
I live an active lifestyle	Disagree	64	25.1%	8	3.1%	72	28.2%
	Agree	66	25.9%	9	3.5%	75	29.4%
	Strongly Agree	3	1.2%	105	41.2%	108	42.4%
When I get hurt or disappointed, I bounce back quickly	Disagree	3	1.2%	105	41.2%	108	42.4%
	Agree	64	25.1%	8	3.1%	72	28.2%
	Strongly Agree	66	25.9%	9	3.5%	75	29.4%
I articulate the main values that govern my life and describe the activities that I regularly participate in that are consistent with these values	Agree	3	1.2%	105	41.2%	108	42.4%
	Strongly Agree	130	51.0%	17	6.7%	147	57.6%
I have hobbies or interests that I enjoy doing on my own	Disagree	66	25.9%	9	3.5%	75	29.4%
	Agree	64	25.1%	8	3.1%	72	28.2%
	Strongly Agree	3	1.2%	105	41.2%	108	42.4%
I learn by doing	Disagree	130	51.0%	35	13.7%	165	64.7%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
I encourage quiet time and time to reflect in my classes	Disagree	69	27.1%	96	37.6%	165	64.7%
	Agree	64	25.1%	26	10.2%	90	35.3%

The levels of Intrapersonal Intelligence among the respondents were analysed among the respondents through set of ten questions. The respondents were asked to mark, whether they are agree, disagree and strongly agree. The respondents tabulate the results in Table 4.9 out of ten questions the following two questions were 'agree'

- I would rather create my own lessons than use material directly from the book (100%)
- I consider myself independent (64.7%)



They respondents were disagreed in the following questions and the disagree percent is more than one third.

- I keep a journal and record my thoughts
- I learn by doing
- I encourage quiet time and time to reflect in my classes

DEGREE				
	Count	BLIS	MLIS	Row Total
	Tab	pct		
			1	2
Disagree	0	399	384	783
		156.5	150.6	307.1
Agree	1	527	400	927
		206.7	156.9	363.5
Strongly Agree	2	404	436	840
		158.4	171.0	329.4
Column Total		133	122	255
		52.2	47.8	100.0

Percents and totals based on respondents

255 valid cases; 0 missing cases

It is seen from the table 4.10, that the necessity for Intrapersonal Intelligence of strongly agreed both BLIS and MLIS 840 rating points. Similarly 927 rating points provided for agree. Equally ratings for 783 rating points provided by disagree for this group.

## 7.9 Interpersonal Intelligence

Table 11. Interpersonal Intelligence

Intrapersonal Intelligence		Degree				Total	
		BLIS		MLIS		No.	%
		No.	%	No.	%		
I regularly spend time meditating	Disagree			18	7.1%	18	7.1%
I prefer going to a party rather than staying home alone	Disagree			18	7.1%	18	7.1%
	Agree	133	52.2%	104	40.8%	237	92.9%
When I have problems, I like to discuss them with friends	Agree	130	51.0%	35	13.7%	165	64.7%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
People often come to me with their problems	Disagree	3	1.2%	87	34.1%	90	35.3%
	Agree	66	25.9%	9	3.5%	75	29.4%
	Strongly Agree	64	25.1%	26	10.2%	90	35.3%
I am involved in social activities several nights a week	Disagree			18	7.1%	18	7.1%
	Agree	130	51.0%	17	6.7%	147	57.6%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
I like to entertain friends and have parties	Disagree	66	25.9%	9	3.5%	75	29.4%
	Agree	3	1.2%	105	41.2%	108	42.4%
	Strongly Agree	64	25.1%	8	3.1%	72	28.2%
I consider myself a leader and often assume leadership roles	Disagree	64	25.1%	8	3.1%	72	28.2%
	Strongly Agree	69	27.1%	114	44.7%	183	71.8%
I am keenly aware of my moral beliefs.	Disagree	3	1.2%	87	34.1%	90	35.3%
	Agree	130	51.0%	35	13.7%	165	64.7%
I have more than one close friend	Disagree	64	25.1%	8	3.1%	72	28.2%
	Agree	69	27.1%	96	37.6%	165	64.7%
	Strongly Agree			18	7.1%	18	7.1%
I am comfortable in a crowd or at a party with many people I don't know	Agree	130	51.0%	35	13.7%	165	64.7%
	Strongly Agree	3	1.2%	87	34.1%	90	35.3%
I need to know why I should do something before I agree to do it	Disagree	67	26.3%	113	44.3%	180	70.6%
	Agree	66	25.9%	9	3.5%	75	29.4%

The levels of Interpersonal Intelligence among the respondents were analysed among the respondents through set of ten questions. The respondents were asked to mark, whether they are agree, disagree and strongly agree. The respondents tabulate the results in Table 12 out of ten questions the following four questions were either 'agree' or 'strongly agree'

- I prefer going to a party rather than staying home alone
- When I have problems, I like to discuss them with friends
- I am involved in social activities several nights a week
- I like to entertain friends and have parties

They respondents were disagreed in the following question and the disagree percent is very high.

- I need to know why I should do something before I agree to do it

	DEGREE			Row Total
	Count Tab pct	BLIS	MLIS	
		1	2	
Disagree	0 104.7	267 136.5	348 174.5	615 241.2
Agree	1 336.1	857 427.5	445 212.5	1302 510.6
Strongly Agree	2 80.8	206 103.0	427 213.5	633 248.2
Column Total		133 52.2	122 47.8	255 100.0

Percents and totals based on respondents  
255 valid cases; 0 missing cases

It is seen from the table 12, that the necessity for Interpersonal Intelligence of agreed both BLIS and MLIS 1302 rating points. Both strongly and disagree ratings are similar 633 and 615 respectively.

## 8 FINDINGS IN RELATION TO HYPOTHESES

The study undertaken indicates that the **hypotheses-**

- 1 All the library and Information Science students are having equal amount of Multiple Intelligence.
- 2 Post Graduate students in Library and Information Science are having more MI than UG students
- 3 Female Library and Information Science students are having more MI than male students.

## 9. CONCLUSION

This study shows that among the student community the awareness of the intelligences. Female students are having more Multiple Intelligences compare to male students. As far as India concerned, the life is concerned male dominate and lead the family even though he does not have more knowledge than opposite sex, When the male students by experience getting more exposure to all filed.

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