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2016 . .

አዲስ አበባ ዩኒቨርሲቲ

የሰነድ የቋንቋዎች ጥናት፣ የጋዜጠኝነትና ተግባራት ኮሌጅ

የአማርኛ ቋንቋ፣ ሥነ ጽሑፍና ፎክሎር ትምህርት ክፍል

የድግሪ ምረቃ መርሀ ግብር

የፈተና ቦርድ አባላት ማረጋገጫ

ይህ ጥናት “ፕሮጀክት ተኮር መማር፣ በመጻፍ ችሎታና ተነሳሽነት ላይ ያለው ተፅዕኖ፣ በ10ኛ ክፍል አማርኛ ቋንቋ አፍፈት ተማሪዎች ተተኳሪነት” በሚል ርዕስ ለአዲስ አበባ ዩኒቨርሲቲ፣ የሰነድ የቋንቋዎች ጥናት፣ የጋዜጠኝነትና ተግባራት ኮሌጅ፣ የአማርኛ ቋንቋ፣ ሥነ ጽሑፍና ፎክሎር ትምህርት ክፍል፣ በተግባራዊ ስነልሳን አማርኛ ቋንቋን ለማስተማር (TeAm) የፍልስፍና ዶክትሬት ዲግሪ ማሟያነት በስመኝ አልምነህ መሌ የቀረበ ሲሆን፣ የዩኒቨርሲቲውን የጥራትና የወጥነት መስፈርት ስለማሟላቱ፣ በጥናቱ አማካሪዎችና ፈታኞች ተረጋግጧል።

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አማካሪዎች

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የውስጥ ፈታኝ

ስም ጌታቱን ሽማግሌ (ዶ/ር) ፊርማ [Signature] ቀን 23/11/2016

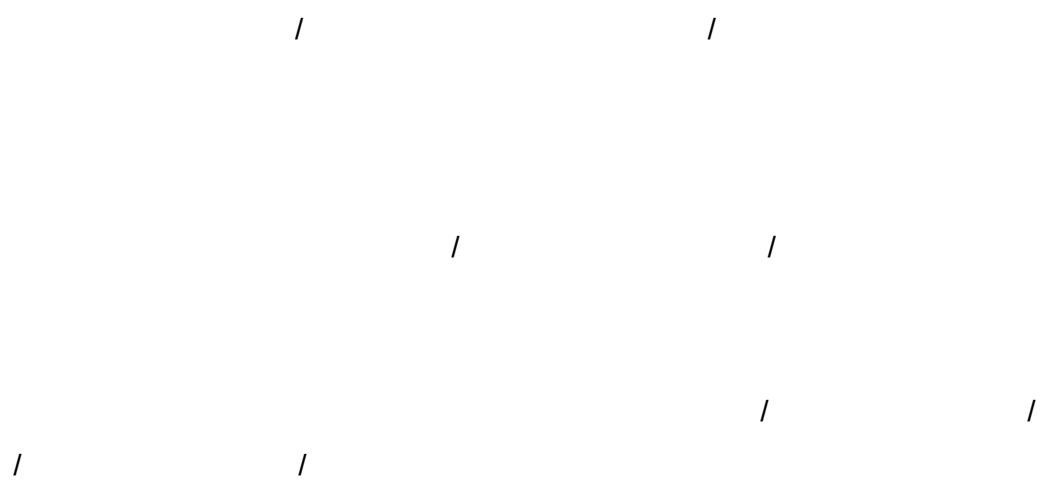
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ፊርማ SA

ቀን 14/10/2016



(quasi-expermental)

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(Multivariate Analysis of Variance, MANOVA)

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($p < .05$)

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1.8		22
	-	23
2.1		23
2.1.1		24
2.1.1.1		25
2.1.1.2		27
2.1.1.3		29
2.1.2		30
2.2		31
2.2.1		34
2.2.2		36
2.2.3		37

2.2.4		38
2.3	.....	39
2.3.1	.....	43
2.3.2	.....	47
2.3.4	.....	49
2.4	.....	52
2.5	.....	57
-	.....	63
3.1	.....	63
3.2	.....	63
3.3	.....	65
3.3.1	.....	66
3.3.2	.....	68
3.4	.....	70
3.5		71
3.6		73
3.7		76
3.8		76
-		80
4.1		80
4.2		94
-		106
5.1		106
5.2		109
5.3		111
		113
		126
- Payne (2012)		126

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	(Check list)	227
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		232
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		252
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	(Assumptions) ()	252

1 -	(Francis, 2018 Teach Thought Staff, 2019).....	39
2 -		63
3 -	10 Q 10 R	
(MANOVA).....		82
4 -	10 Q 10 R	
(MANOVA)		83
5 -	10 Q 10 R	
(MANOVA).....		86
6 -	(MANOVA).....	87
-7		
(MANOVA)		89
8 -	(MANOVA)...	93
1 -	(Francis 2012).....	37
2 -	(Thoughtful learning Newsletter, 2020).....	41
3 -	(Thoughtful learning Newsletter, 2020)..	42
4 -		50
5 -	(Melin et al., 2006).....	61
6 -		73

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1.1

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(1992 . .) . . . 1908
(1992
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(Pankhurst, 1976 Yalew, 1997)

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(Masood, 2013)

(2009 . .) (Murphy, 1996 Bourelle, 2009)
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1960

(Mubarak, 2013)

(Richards, 1990)

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(Hyland, 2009)

1960
(Russell, 2002)

1970

(Mubarak, 2013 Alkhatib,
2015)

1970

(Williams, 2003)

1970

1980

(Mubarak, 2013 Alkhatib, 2015)

(Mubarak, 2013)

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(Hyland, 2009)

(Mubarak, 2013 Alkhatib, 2015)

(Unger and Fleishman,
2004)

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(Hyland, 2004)

(Mubarak, 2013) Mubarak, (2013) Kim (2007) Swales (1990)

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(Mubarak, 2013)

(2009 . .) (Adas and Bakir, 2013, Nacira, 2010, Richards and Renandya, 2003)

Jarunthawatchai (2010)

Tangerpermpoon (2008)

- (Railsback, 2002 Simpson, 2011 Jumaat, Tasir, Halim, and Ashari, 2017)
 Burlbaw, Ortwein, and Williams (2013) Kilpatric 1918

Kilpatric

(Burlbaw et al., 2013)

Simpson (2011) (Wolk 1994 Muniandy 2000 Beckett 2006)

David Snedden

William Heard Kilpatric

Harris (2014) Dewey (1938)

Dewey

Harris (2014) Dewey

(1938)

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John Dewey

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Dewey

(Traditional)

(Progressive)

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/Continuity/

/Interaction/

Dewey

(Harris, 2014)

Burlbaw et al. (2013) Ruediger (1923)

Ruediger

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Burlbaw et al. (2013) Horn's (1922)

Horn's

Burlbaw et al. (2013) Horn's 1922

Horn's

Burlbaw et al. (2013)

20 / /

Kilpatric

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/STEM PBL/" (Burlbaw et al. . . 2013)

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"STEM PBL"

(Burlbaw et al., 2013) Nassir (2014)

Eyring (1997)

1970

1990

Ke (2010)	Lam (2011)	Simpson (2011)
D'Ambra (2014)	Farouk (2016)	Kimsesiz,
Dolgunsoz, and Konca (2017)	Rocha (2017)	Essien (2018)
		Holst
(2003)	Harris (2014)	Kalabzová (2015)
(Weast Bohemia)	Grant (2017)	
Nassir (2014)	Jumaat et al. (2017)	Astawa, Artini, and Nitiasih (2017)
Praba, Artini, and Ramendra (2018)		

1.2

(Sajjad, 2009) Munawaroh (2017)

(Munawaroh, 2017)

11 15 20 (1986 . .)
(2003 . .)
(2010 . .)

(Richards, 1990 Munro, 2003 Lillis and Scott,
2007 McGraw, 2009)

(1996 . .) (2003 . .)
(2005 . .) (2009 . .)

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(Munro, 2003 Chokwe, 2011 Nassir, 2014)

(Munro, 2003 Chokwe, 2011)

(2005 . .)

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(Simpson, 2011 Nassir, 2014)

(Affective Domain)

(Hogue, 2016)

(Gupta and Woldemariam, 2011)

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(Banda,

2007 Chokwe, 2011)

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(Silva, 1993)

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(Farouk, 2016 Jarunthawatchai,

2010 Tangerpermpoon, 2008)

(Railsback, 2002 Simpson, 2011 Jumaat et al.,
2017)
(Sumarni, 2015 Sharma, 2018)
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Simpson (2011)

Nassir (2014)

Castaneda (2014)

Farouk (2016)

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Astawa et al. (2017)

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Essien (2018)

Shin (2018)

(Self Efficacy)

Thitivesa (2014)

Daniela (2016)

Rocha (2017)

Ke (2010)

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(Grabe and Kaplan, 1996)

(Burlbaw, et al. 2013)

(Nassir, 2014)

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Simpson (2011)

Thitivesa (2014)

Simpson (2011)

Thitivesa (2014)

Ke (2010)

($t=0.792$, $p=0.430$)

($t=1.464$, $p=0.145$)

Ke (2010)

Thitivesa

(2014) Rocha (2017)

Castaneda (2014)

Shin (2018)

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(1986 . 2003 .
2010 . Heaton, 1975 Richards, 1990 Muslim, 2014 Norish,
1990 Masood, 2013)
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Patel and Jain (2008)

Byrne (1988)

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(Palmer-Silveria and Ruiz-Garrido, 2007)

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(Palmer-Silveria and Ruiz-Garrido, 2007)

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...)

2.1.1

(Raimes,

1983 Richards, 1990 Jozsef, 2001 Mubarak, 2013 Alkhatib, 2015)

2.1.1.1

1960 (Product Oriented-
Approach) (Traditional Paradigm)
(Mubarak, 2013)

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(Richards, 1990)

(2015) Mubarak (2013) Alkhatib

(Familiarization) -

(...)

(Mubarak, 2013)

(Controlled Writting) - Mubarak (2013)

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Raimes (1983)

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(Madsen, 1983 Raimes, 1983 Mubarak,
2013)

(Guided Writing) -

Raimes (1983)

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(Free Writting) - Raimes (1983)

2.1.1.2

Mubarak (2013)

Alkhatib (2015)

1970

1980

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/ (Mubarak, 2013)
Badger and white (2001) Hedge (2003) Hyland (2003)

/Brain
storming/ /
Mubarak (2013) Freeman and
Freeman (2004)

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/Revision/

(Mubarak, 2013 Alkhatib, 2015)

2.1.1.3

Mubarak (2013) Alkhatib (2015)

Mubarak (2013) Cope and Kalantzis (1993)

/

Evans (1997)

Dudley-

2013)

(Mubarak,

- Mubarak (2013) Kim (2007) Swales (1990)
/

/ Mubarak (2013) Byram (2004)

-

/Convention/

/Features/

/

(Jarunthawatchai, 2010 Tangpermpoon, 2008)

2.1.2

Wood (2004)

Gustafson et al. (no date)

(Gustafson et al., no date)

2.2

Gopalan, Bakar, Zulkifli, Alwi, and Mat (2017)

Anjomshoa and Sadighi (2015)

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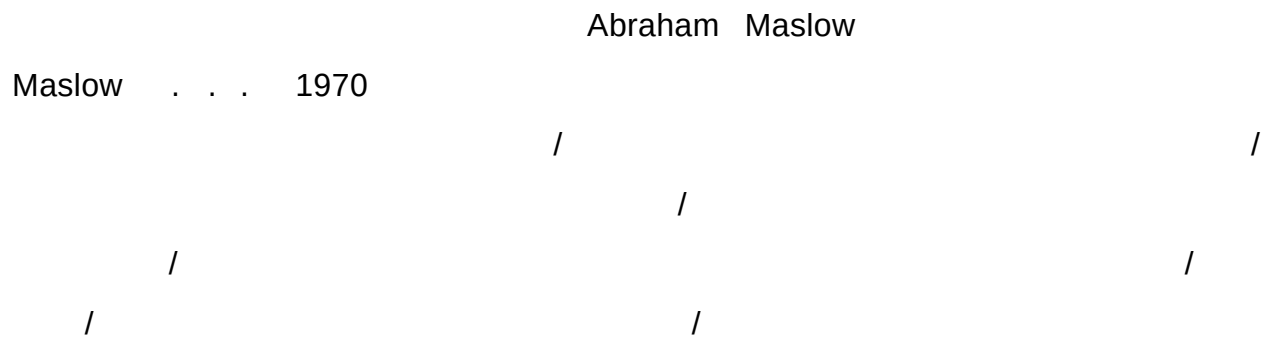
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(Anjomshoa and Sadighi, 2015)

Leon Piagets

(Anjomshoa and Sadighi, 2015)

(Anjomshoa and Sadighi, 2015)



(Anjomshoa and Sadighi, 2015)

/Self Determination Theory/ Edward Deci
and Richard Ryan

(Anjomshoa and Sadighi, 2015)

Albert
Bandura

(Anjomshoa and Sadighi, 2015)

Brown (2000)

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2.2.1

Francis (2012)

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Brown (2000) Khodashenas, Amouzegar, Farahani, Hasheminasab,
and Kazemian (2013) Anjomshoa and Sadighi (2015) Gopalan et al. (2017)

/

/

Francis (2012) <https://www.mbaknol.com>

Krashen (1981) Khodashenas et al. (2013) Anjomshoa and
Sadighi (2015) /Instrumental/ and /Integrative/

/

2.2.2

Francis (2012)

/Unsatisfied need/

/ Tension/

/Drive/

/

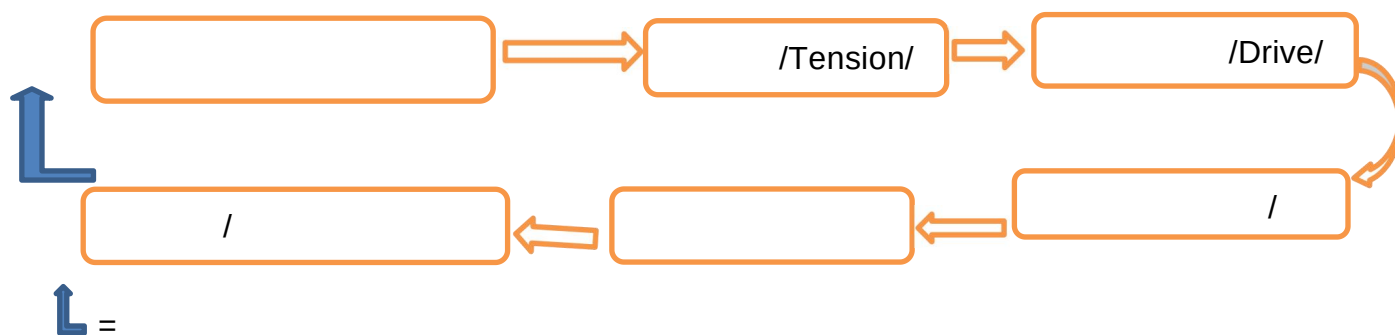
/Search Behavior/

/Satisfied need/

/

/Reduction of tension/

/



1 - (Francis 2012)

2.2.3

Francis (2012)

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2.2.4

(Gopalan et al., 2017)

(Al-Shourafa, 2012)

Gupta and Woldemariam (2011)

2.3

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/ ... ”

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Teach Thought Staff (2019)

Francis (2018) Teach Thought Staff (2019)

1 -

(Francis, 2018 Teach Thought Staff, 2019)

	“ ” / “Need to Knows”/
	/

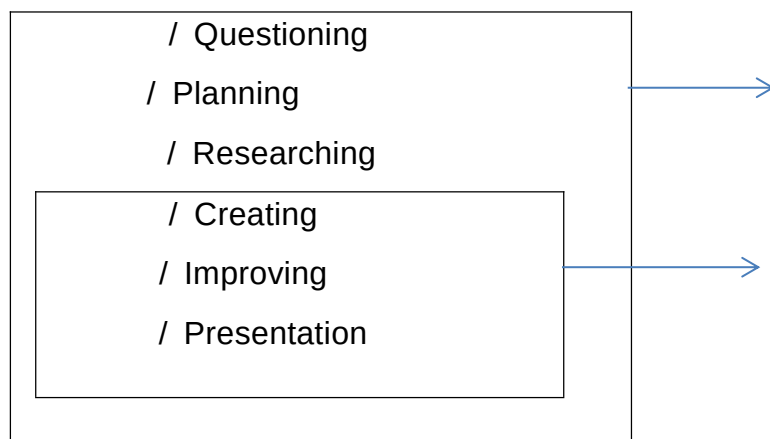
Thoughtful Learning Newsletter (2020)

(Traditional Class)

(Traditional Class)

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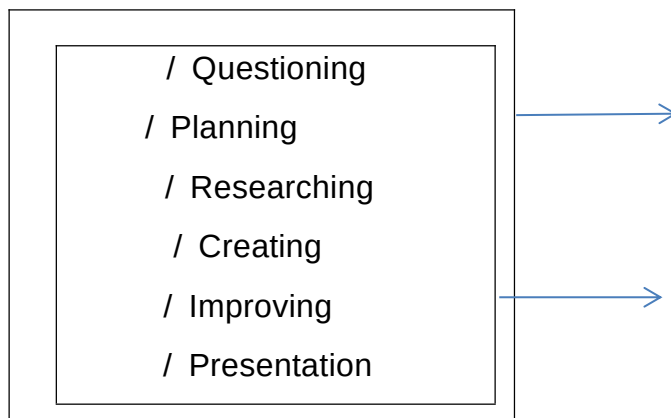
(10 2004)



- 2

(Thoughtful learning Newsletter, 2020)

(/Critical Thinking and
problem solving/ /communication/ /collaboration/
/creativity and innovation/ (Stivers, 2010 Praba, et al., 2018)



(Thoughtful Learning Newsletter, 2020)

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2.3.1

Simpson (2011) Wolk (1994) Muniandy (2000) Beckett (2006)

David

Snedden

William Heard Kilpatric

Affandi and Sukyadi (2016)

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"

Wibowo and Aji (2017)

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Simpson (2011)

Nassir (2014) Richards and Rodgers (2001)

(Allen, 2004)

(Nassir, 2014)

(Wrigley, 1998 Nassir, 2014)

/action-

based learning/

/learning by doing/

/group

dynamics/

/interpersonal communication/

(Nassir, 2014)

Simpson (2011)

Solomon

(2003)

Moss and Van

Duzer (1998)

Simpson (2011)

Fried-Booth (2002)

(Simpson, 2011)

/self-discipline/

(Simpson, 2011)

Nassir (2014)

Nassir (2014) Jumaat et al. (2017) Astawa et al. (2017) Praba et al. (2018)

(Sumarni, 2015 Sharma, 2018)

/

2.3.2

Nassir (2014) Gandini (1997)

Dewey's
doing/

/learning by

-

/Student-centeredness/ -

/autonomy/

/Increased motivation/ -

/Cooperative and collaborative/ -

/Learning outcomes/ -

/Balance of process and product/ -

(Nassir, 2014)

Simpson (2011) /

time/ /complex explorations over a period of

(Simpson, 2011) / /assessment/

2.3.4

Nassir (2014) Schuler (2000)

/

Fried-Booth (1986)

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Nassir (2014) Fried-Booth (1986)

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1. /Stimulus/ -

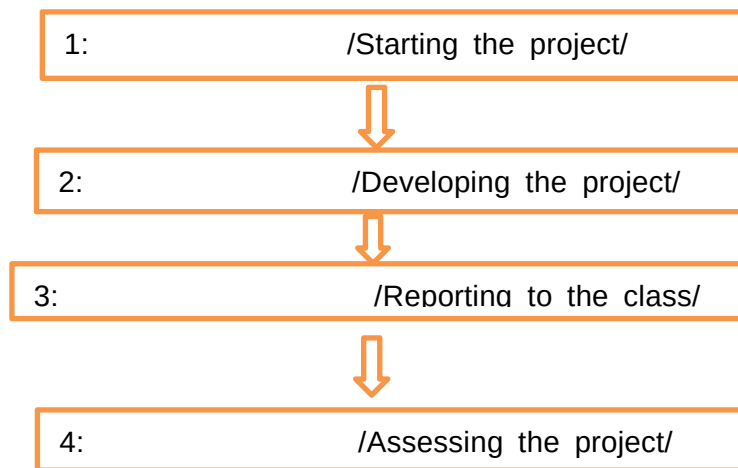
2. /Definition of the Project Objective/ -

3. /Practice of Language Skills/ -

4. /Design of Written Materials/ -

5. /Group Activities/ -
6. /Collection of Information/ -
7. /Organization of Material/ -
8. /Final presentation/ -

Simpson (2011)



4 - (Simpson, 2011 57)

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/project outline/

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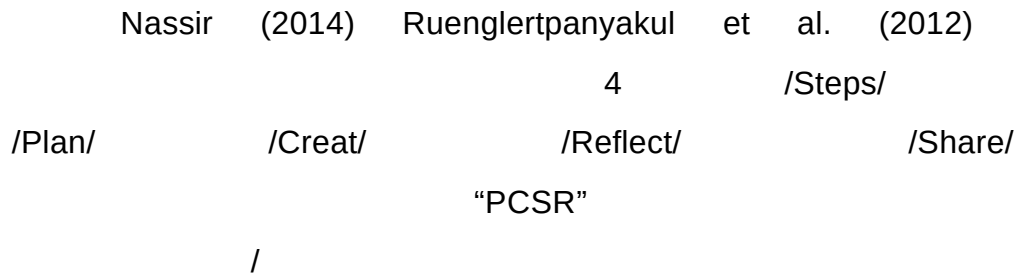
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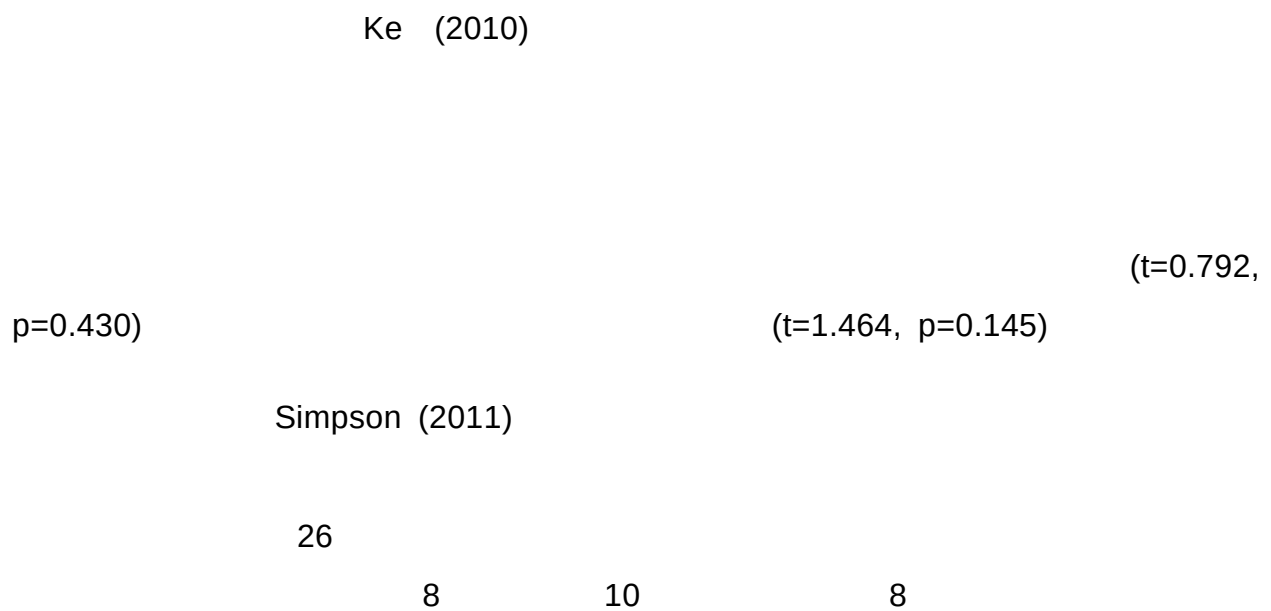
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2.4



(Wilcoxon Mached Pairs Sign Rank Test)

(Written Expression)

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Thitivesa (2014)

(Rajabhat)

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Castaneda (2014)

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Nassir (2014)

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Daniela (2016)

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Farouk (2016)

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Astawa et al. (2017)

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Essien (2018)

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Shin (2018)

(Self Efficacy)

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Taveau (2005) Gülbahar and Tinmaz (2006) (Simpson, 2011) Sidman-
Simpson (2011)

(Gülbahar and Tinmaz, 2006)

Vygotsky (1978)
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(Sidman-Taveau, 2005)

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/Scaffolding/

/Scaffolding/

(Hammond and Gibbons, 2001) Simpson (2011)

/scaffolding/

/scaffolding/

Melin, Axelsson and Wedlund (2006)

- / Overall Course Design

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- /Project Task/

(Melin et al., 2006)

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➤ /Relevant and Autentic/ -

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• /Project Group/

Melin et al. (2006)

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(Melin et al., 2006)

- /Feedback/

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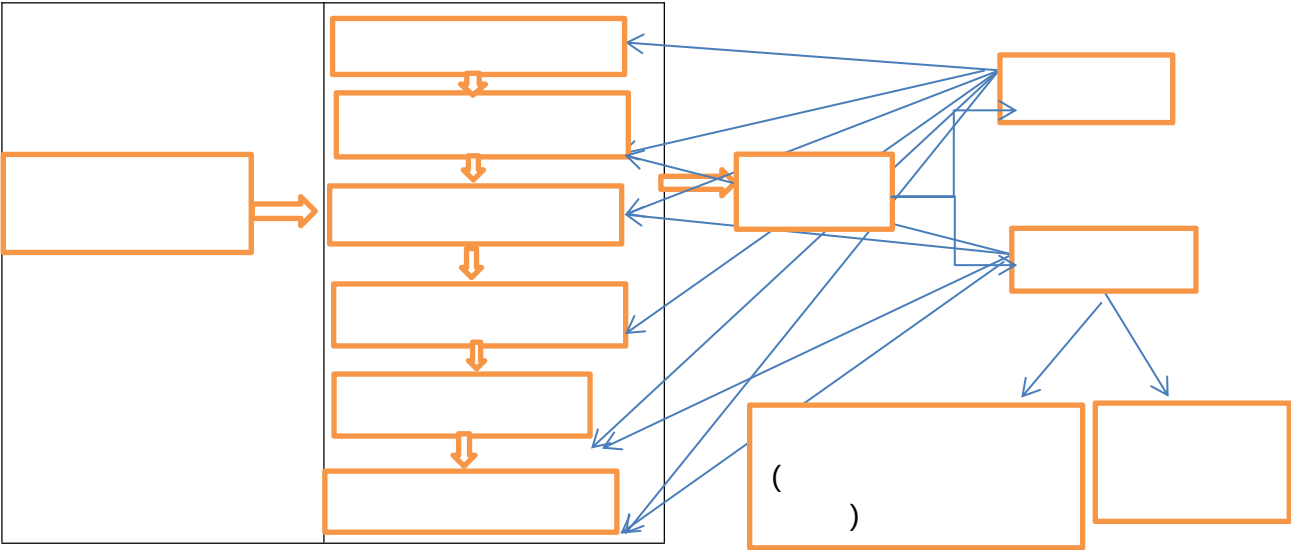
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- / /Course evaluation and Improvement/

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(Melin et al., 2006)

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(quasi-expermental)

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(Cronbach's Alpha Based on Standrdized Items) 0.705

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Payne (2012)

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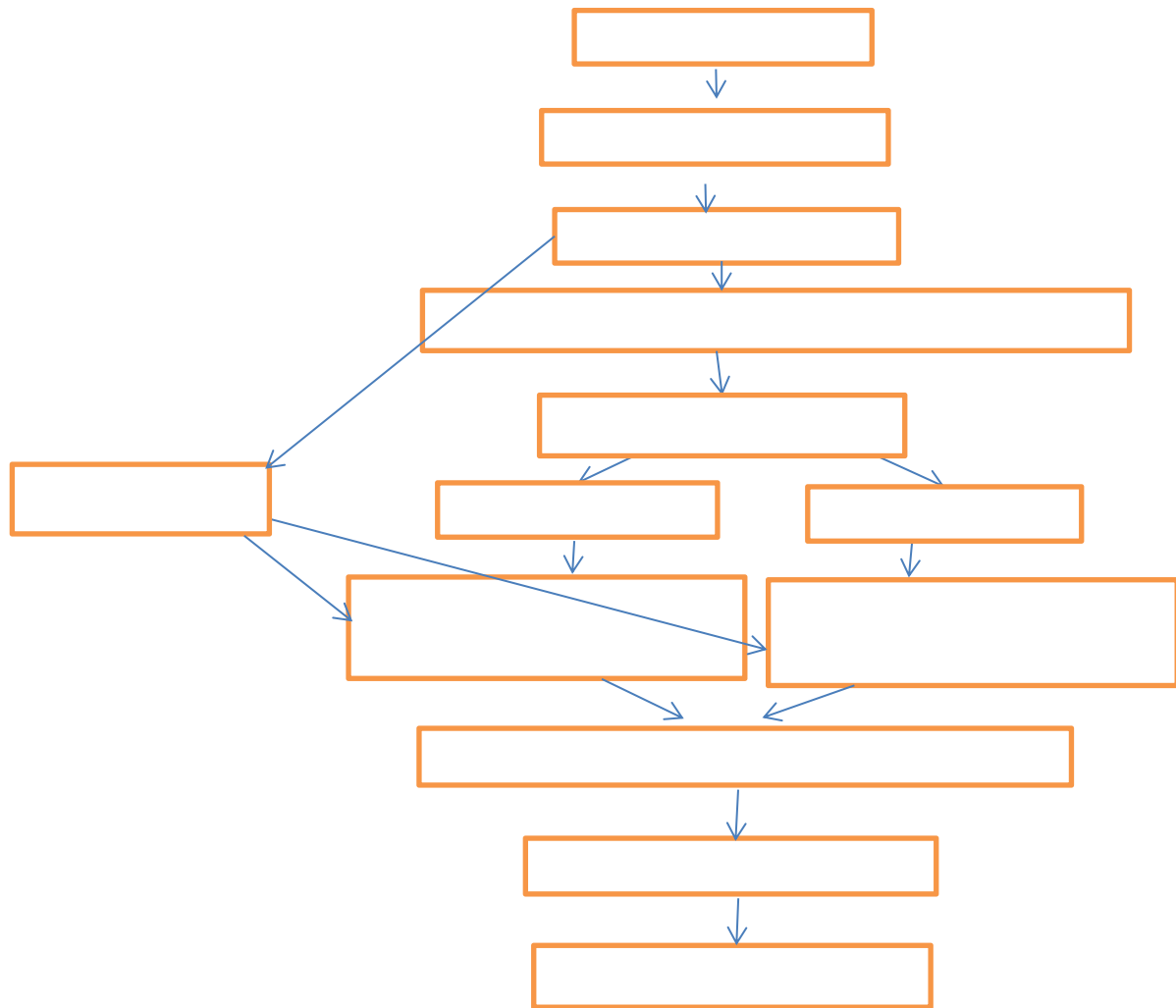
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/Parametric Tests/



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/Parametric Tests/

(Multivariate Analysis of Variance, MANOVA)

		(Sample Size)	
	50		
			(Tests of
Normality)	-	-	
0.05	(	53	)
(Multivariate normality-Mahalanobis)			
			(Critical
Value) 20.52		(	
)		(Critical Value)	13.82
16.591		12.889	
		12.689	
		8.014	(
			53
			)
			(Variance
Inflation Factor)			
5			
5		(	53
			)
			(Equality of
Covariance Box's Test)			

0.001

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Analysis of Variance, MANOVA)

(10 R 10 Q)

Multivariate Analysis of Variance,
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Analysis of Variance, MANOVA)

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(Multivariate Analysis of Variance,
MANOVA)

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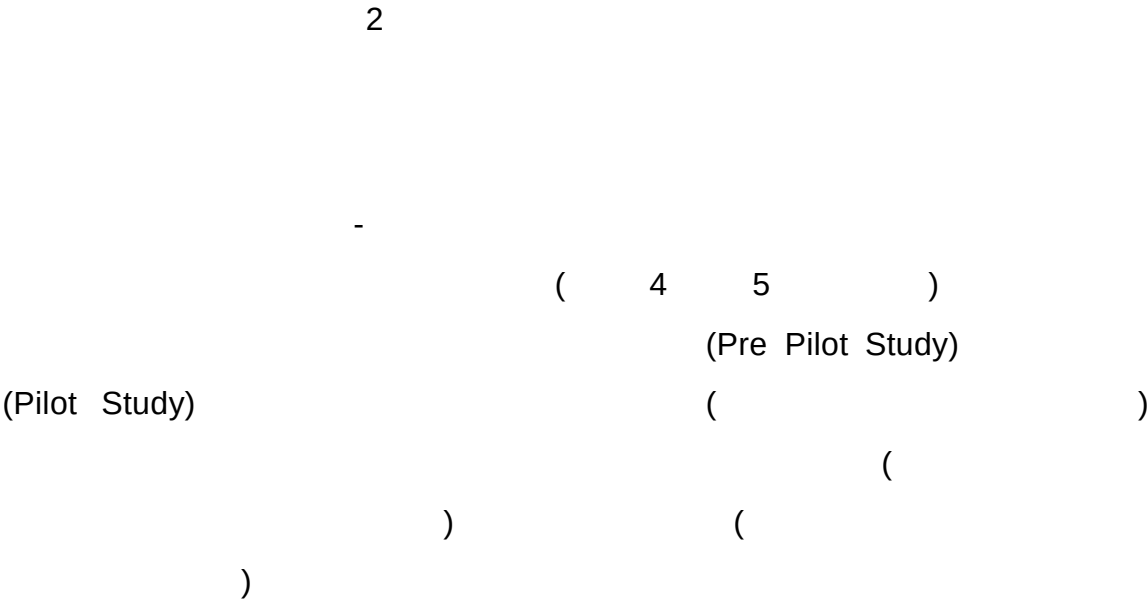
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(level of Singificance)

$P < 0.05$

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(Multivariate Analysis of

Variance, MANOVA)

3 - 10 Q 10 R

(MANOVA)

					(f)			
	10 Q	47	54.365	5.312	.646	1,92	.424	0.007
	10 R	47	53.578	4.111				

- 0.79

10 Q (M=54.365)

(SD=5.312)

10 R

(M=53.578)

(SD=4.111)

0.79

/Parametric Tests/

(MANOVA)

(sig.(2-tailed))

(f(1,92)=.646)

(P=.424) 0.05

10 Q

10 R

10 Q

10 R

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10 Q

10 R

4 -

10 Q

10 R

(MANOVA)

					(f)			
	10 Q	47	16.106	1.875	0.062	1,92	0.804	0.001
	10 R	47	16.021	1.399				
	10 Q	47	11.113	2.057	0.132	1,92	0.717	0.001
	10 R	47	10.993	0.969				
	10 Q	47	11.518	2.299	0.838	1,92	0.362	0.009
	10 R	47	11.163	1.329				
	10 Q	47	13.099	2.212	0.283	1,92	0.596	0.003
	10 R	47	12.879	1.774				
	10 Q	47	2.528	0.338	0.009	1,92	0.923	0.000
	10 R	47	2.521	0.369				
-		0.085		0.12				0.355

0.22

0.007

10 Q

10 R

10 Q

(M=16.106)

(SD=1.875)

10 R

(M=16.021)

(SD=1.399)

0.085

10 Q

10 R

(sig.(2-tailed))

(f(1,92)=.062)

(P=0.804) 0.05

10 Q

10 R

4

10 Q

(M=11.113)

(SD=2.057)

10 R

(M=10.993)

(SD=0.969)

10 Q

10 R

0.12

10 Q

10 R

(sig.(2-tailed))

(f(1,92)=0.132)

(P=0.717)

0.05

10 Q

10 R

4

10 Q

(M=11.518)

(SD=2.299)

10 R

(M=11.163)

(SD=1.329)

0.355

			(sig. (2-tailed))	(f(1,92)=0.838)
		(P=0.362)		0.05
10	Q	10	R	
		4		
(	10	Q	10	R)
	10	Q	(M=13.099)	(SD=2.212)
		10	R	(M=12.879)
		(SD=1.774)		
	0.22		10	Q 10 R
(sig. (2-tailed))		(f(1,92)=0.283)		(P=0.596)
		0.05		
(	10	Q	10	R)
	10	Q (M=2.528)		(SD=0.338)
	10	R (M=2.521)		(SD=0.369)
				0.007
			(sig. (2-tailed))	(f(1,92)=0.009)
(P=0.923)				0.05
		4		
	10	Q	10	R

5 - 10 Q 10 R

(MANOVA)

					(f)			
	10 Q	47	3.282	0.399	0.091	1,92	0.764	0.001
	10 R	47	3.258	0.358				

- 0.024

10 Q (M=3.282)

(SD=0.399)

10 R

(M=3.258)

(SD=0.358)

0.024

/Parametric Tests/

(MANOVA)

92

f- 0.091

(Sig.(2-tailed))

(f(1,92)=0.091)

0.05

(p=0.764)

10 Q 10 R

10 Q 10 Q 10 R
10 R

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(MANOVA)

6 -

(MANOVA)

					(f)			
		47	53.975	3.620	130.556	1,92	0.000	0.587
		47	62.305	3.446				

- 8.33

	(10 Q)	(M=53.975)	
(SD=3.620)		(10 R)	
(M=62.305)		(SD=3.446)	
		8.33	
	(MANOVA)	(sig.2-tailed)	(f(1,92)=130.556)
	(p=0.000)		(p=0.000)
0.05			(Partial
$\eta^2=0.587$)			
			(p=0.000)
		Chohen (1888)	
(Eta Squared)		(Partial $\eta^2=0.587$)	
		58.7%	
	“	(	)
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7 -

(MANOVA)

					(F)			
		47	15.993	1.539	31.056	1,92	0.000	0.252
		47	18.276	2.350				
		47	11.219	1.664	38.1	1,92	0.000	0.293
		47	12.993	1.053				
		47	11.333	1.738	28.645	1,92	0.000	0.237
		47	13.113	1.477				
		47	13.085	2.13	15.813	1,92	0.000	0.147
		47	14.858	2.192				
		47	2.344	0.304	74.152	1,92	0.000	0.446
		47	3.064	0.486				

-

2.283

1.774

1.78

1.773

0.72

7

(10 Q)

(10 R)

(10 Q)

(M=15.993)

(SD=1.539)

(10 R)

(M=18.276)

(SD=2.350)

2.283

92

(Sig.(2-tailed)) (f(1,92)=31.056) (p=0.000)

(p=0.000) 0.05

Partial $\eta^2=0.252$ Chohen (1888)

(Eta Squared)

25.2%

(10 Q)

(10 R) 2

(M=11.219) (SD=1.664) (10 Q)

(M=12.993) (SD=1.053) (10 R)

1.774

(Sig.(2-tailed)) (f(1,92)=38.1)

(p=0.000)

(p=0.000) 0.05

Partial $\eta^2=0.293$ Chohen

(1888) (Eta Squared)

29.3%

3

7 (10 Q) (M=11.333)

	(SD=1.738)		
(10 R)	(M=13.113)		(SD=1.477)
	1.78		
	(Sig.(2-tailed))	(f(1,92)=28.645)	
(p=0.000)	0.05		0.05
		(<i>Partial</i> $\eta^2=0.237$)	
	Chohen (1888)	(Eta Squared)	
			23.7%
	4		
	(10 Q)	(M=13.085)	(SD=2.13)
		(10 R)	(M=14.858)
	(SD=2.192)		
	1.773		
	(Sig.(2-tailed))	(f(1,92)=15.813)	
	(p=0.000)	0.05	
		(<i>Partial</i>	
$\eta^2=0.147$)	Chohen (1888)	(Eta	
Squared)			
	14.7%		
		(10 Q)	

(M=2.344)

(SD=0.304)

(10 R)

(M=3.064)

(SD=0.486)

0.72

(Sig.(2-tailed))

(f(1,92)=74.152)

(p=0.000)

0.05

(Partial $\eta^2=0.446$)

Chohen (1888)

(Eta Squared)

44.6%

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(MANOVA)

8 -

(MANOVA)

					(f)			
		47	3.028	0.519	195.847	92	0.000	0.68
		47	4.285	0.332				

1.257

8

(10 Q)

(10 R)

(MANOVA)

(M=3.028)

(0.519)

(M=4.285)

(SD=0.332)

1.257

(M=3.028)

(M=4.285) 1.257

(MANOVA)

(sig.(2-tailed))

(f(1,92)=195.847)

(p=0.000)

(Partial $\eta^2=0.68$)

Chohen (1888)

(Eta Squared)

68%

4.2

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(MANOVA)

($f(1,92)=130.556$ $p=0.000$ $\eta^2=0.587$)

Chohen (1888)

(Eta Squared)

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($\eta^2=0.587$)

58.7%

9

Simpson (2011)

Nassir (2014)

Thitivesa (2014)

Ke (2010)

3

Simpson (2011)

26

($p=0.01$)

Nassir (2014)

76 9

(p=0.000)

($\eta^2 = 0.512$)

(p=0.000)

($\eta^2 = 0.282$)

Thitivesa (2014)

38

(Rajabhat)

Thitivesa (2014)

Thitivesa

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Ke (2010)

80

103

183

(t=0.792 p=0.430)

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Astawa et al. (2017)

Astawa et al. (2017)

28 7

(p=0.000)

Arochman, et al. (2024) Hakimah
(2023) Fitria and Abidin (2023) Izzeldeen (2017)

Arochman, et al.
39 3

P=0.000

39

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Hakimah (2023)

42 SMP Negeri

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P=0.000

Hakimah

Arochman, et al. (2024)

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Hakimah (2023)

Hakimah

Fitria and Abidin (2023)
(SMP) 28 (10 18)

56.5 70
12.6%

Fitria and Abidin (2023)

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Fitria and Abidin
(2023)

Izzeldeen (2017) 2
9 A B
34 9 A 35 9 B
9 B 9 A

(p=0.029 P=0.11)

Lam (2011) Petersen (2014) Kavlu (2017)
 Syarifah and Emiliasari (2018) Praba et al. (2018) Essien (2018)

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(f(1,92)=31.056 p=0.000 $\eta^2=0.252$) (f(1,92)=38.1
 p=0.000 $\eta^2=0.293$) (f(1,92)=28.645 p=0.000
 $\eta^2=0.237$) (f(1,92)=15.813 p=0.000 $\eta^2=0.147$)

(f(1,92)=74.152 p=0.000 $\eta^2=0.446$)

Chohen (1888)

(Eta Squared)

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($\eta^2=0.293$)

($\eta^2=0.446$)

($\eta^2=0.237$)

($\eta^2=0.252$)

($\eta^2=0.147$)

23.7%

25.2%

14.7%

29.3%

44.6%

Thitivesa (2014)

Arochman, et al. (2024)

Thitivesa (2014)

Thitivesa (2014)

38

(Rajabhat)

Thitivesa

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Arochman, et al. (2024)

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Thitivesa (2014) Arochman, et al. (2024)

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(MANOVA)

($f(1,92)=195.847$ $p=0.000$ $\eta^2=0.68$)

Chohen (1888)

(Eta Squared)

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($\eta^2=0.68$)

68%

8

Castaneda (2014)

17

Shin (2018)

Shin (2018)

79

(p=0.000)

Hilvonen and Ovaska (2010)

Liu et al. (2004)

Izzeldeen (2017)

Izzeldeen (2017)

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34 9 A

35 9 B

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0.785

0.884

0.862

0.7

/Parametric Tests/

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(p=0.000)

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(p=0.000 $\eta^2=0.587$)

	(	(p=0.000	$\eta^2=0.252$)		(p=0.000	$\eta^2=0.293$)
		(p=0.000	$\eta^2=0.237$)		(p=0.000	
$\eta^2=0.147$)		(p=0.000	$\eta^2=0.446$)			

(p=0.000)

($\eta^2=0.68$)

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- **Payne (2012)**

1	I enjoy writing.
2	I like to write down my thoughts.
3	I use correct grammar in my writing.
4	I complete a writing assignment even when it is difficult.
5	Being a good writer will help me do well academically.
6	I write as well as other students.
7	I write more than the minimum on writing assignments.
8	I put a lot of effort into my writing.
9	I like to participate in written online discussions.
10	I like to get feedback from an instructor on my writing.
11	I am able to clearly express my ideas in writing.
12	I easily focus on what I am writing.
13	I like my writing to be graded.
14	I am more likely to succeed if I can write well.
15	It is easy for me to write good essays.
16	I enjoy creative writing assignments.
17	I like classes that require a lot of writing.
18	I plan how I am going to write something before I write it.
19	Becoming a better writer is important to me.
20	Being a better writer will help me in my career.
21	It is important to me that I make an A on a writing assignment.
22	I enjoy writing assignments that challenge me.
23	I revise my writing before submitting an assignment.
24	Punctuation is easy for me.
25	I enjoy writing literary analysis papers.
26	I like to write even if my writing will not be graded.
27	I like others to read what I have written.
28	I enjoy writing research papers.
29	I would like to have more opportunities to write in classes.
30	Being a good writer is important in getting a good job.
31	I practice writing in order to improve my skills.
32	I want the highest grade in the class on a writing assignment.
33	I would rather write an essay than answer multiple-choice questions.
34	I want others to recognize me as a good writer.
35	Spelling is easy for me.
36	Choosing the right word is easy for me.
37	I am motivated to write in my classes.

- Payne (2012)

Payne (2012)

1	I enjoy writing.	
2	I like to write down my thoughts.	
3	I use correct grammar in my writing.	
4	I complete a writing assignment even when it is difficult.	
5	Being a good writer will help me do well academically.	
6	I write as well as other students.	
7	I write more than the minimum on writing assignments.	
8	I put a lot of effort into my writing.	
9	I like to participate in written online discussions.	/
10	I like to get feedback from an instructor on my writing.	
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25	I enjoy writing literary analysis papers.	-
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35	Spelling is easy for me.	
36	Choosing the right word is easy for me.	
37	I am motivated to write in my classes.	

- Payne (2012)

Payne (2012)

1		I am delighted writing in Amharic language.
2		I want to write my ideas with Amharic language.
3		I want to use correct grammar in my writing.
4		I continue writing in Amharic Language even if I face difficulties.
5		As I am good at writing; I am also benefited in academic issues.
6		As I am enthusiastic to Amharic Language, I do also write as other students do.
7		I can write in Amharic language better than what I am given with writings
8		I am making efforts to develop my writing skill in Amharic.
9	/	I want to participate in internet online writing discussions with Amharic language.
10		I want to be given feedbacks for my writing from my teacher.
11		I want to apparently express my ideas in Amharic language.
12		I only select what I write in Amharic language
13		I want my writing in Amharic to be as good as possible
14		I want to be known in my Amharic writings
15		I want to write essays
16		I want to write creative literary works in Amharic
17		I need relaxed Amharic class schedule to write more.
18		I try to understand how to write before I start.
19		It is desirable for me to be good writer in Amharic language
20		Being good writer in Amharic language helps me to get jobs.

21		I like writing in Amharic as it helps me to achieve good results.
22		. I enjoy challenging writings written in Amharic
23		I revise all my draft writings before I submit
24	-	I want to put correct punctuation marks at their correct positions.
25	-	I am pleased to critique literary works
26		I do not interrupt writing even if I am dissatisfied by what I have written.
27		I want others to reread my writings.
28		I am pleased to write research works with Amharic
29		I want ample opportunities to write in Amharic in the classes
30		I want to be good writer to get good job.
31		I rehearse writing to improve my writing skill in Amharic
32		I want to score high on writing among the students in the classes.
33		I opt essay writing better than multiple choice in Amharic.
34		. I want to be acknowledged by people by writing good works.
35		I want to follow correct spelling while I am writing.
36		When I write in Amharic I want to use correct vocabulary.
37		I have enthusiastic interest to write in Amharic

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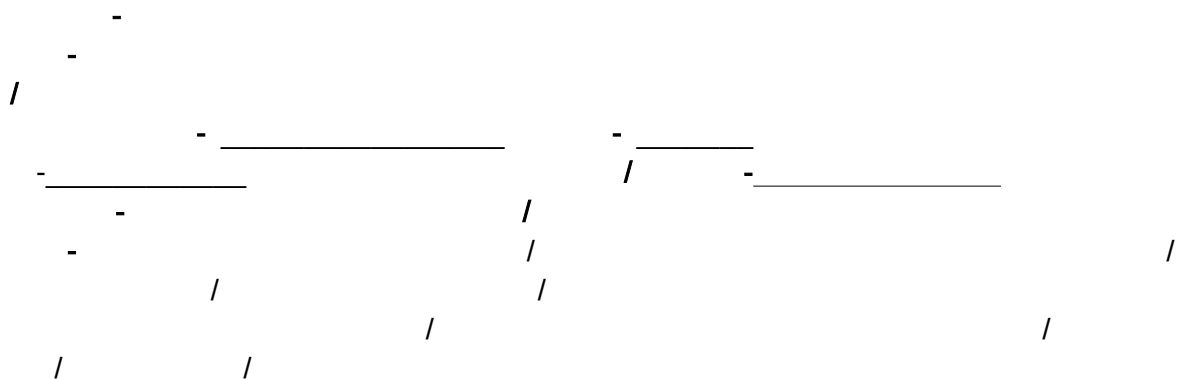
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Aspect	Score	Level/ Criteria
Content	30-27	Excellent to Very Good: • Knowledgeable •Substantive • Thorough •development of thesis • Relevant to assigned topic
	26-22	Good to Average: • Some knowledge of subject • Adequate range •Limited development of thesis • Mostly relevant to the topic, but lacks detail
	21-17	Fair to Poor: Limited knowledge of subject •Little substance •In adequate •development of topic
	16-13	Very Poor: Does not show knowledge of subject • non Substantive •not pertinent •or not enough to evaluate
Organization	20-18	Excellent to Very Good: Fluent expression •Ideas clearly stated/ supported •Succinct •Well-organized •Logical sequencing•cohesive
	17-14	Good to Average: Somewhat choppy •Loosely organized but main ideas stand out •Limited support •Logical but incomplete sequencing
	13-10	Fair to Poor: non-fluent •Ideas confused or disconnected •Lacks logical sequencing and development
	9-7	Very Poor: does not communicate •no organization • or not enough to evaluate
Vocabulary	20-18	Excellent to Very Good: Sophisticated range •Effective word/ idiom choice and usage •Word form mastery •Appropriate register
	17-14	Good to Average: Adequate range •Occasional errors of word/ idiom form, choice, usage but meaning not obscured
	13-10	Fair to Poor: Limited range •Frequent errors of word/ idiom form, choice, usage •Meaning confused or obscured
	9-7	Very Poor: Essential translation •Little knowledge of English vocabulary, idioms, word form •or not enough to evaluate
Language Use	25-22	Excellent to Very Good: Effective complex constructions •Few errors of agreement, tense, number, word order/ function, articles, pronouns, prepositions
	21-18	Good to Average: Effective but simple constructions •Minor problems in complex constructions •Several errors of agreement, tense, number, word order/ function, articles, pronouns, prepositions but meaning seldom obscured
	17-11	Fair to Poor: Major problems in simple/ complex constructions •Frequent errors of negation, agreement, tense, number, word order/ function, articles, pronouns, prepositions and/ or fragments, run-ons, deletions •Meaning confused or obscured

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2	M	14	9	10	10	2	45	M	15	13	13	13	3	57
3	F	13	9	12	13	3	50	F	14	10	10	10	2	46
4	F	13	11	12	12	3	51	M	25	16	17	18	3	79
5	F	12	9	12	11	2	46	F	19	12	11	13	3	58
6	M	11	10	12	14	2	49	M	18	9	10	12	2	51
7	M	18	13	12	15	2	60	M	13	11	10	13	2	49
8	M	19	10	14	11	4	58	M	15	11	12	13	2	53
9	F	21	12	16	19	2	70	F	21	12	17	17	2	69
10	M	16	10	10	12	3	51	M	15	10	11	13	2	51
11	M	19	15	12	15	3	64	M	13	10	10	10	2	45
12	F	16	13	12	18	3	62	F	14	12	10	13	2	51
13	M	15	11	11	12	2	51	M	14	12	11	13	3	53
14	M	17	12	14	18	2	63	M	16	12	10	10	2	50
15	M	17	11	10	8	2	48	M	15	12	13	12	3	55
16	F	14	12	11	10	2	49	F	14	10	10	10	2	46
17	M	14	9	13	16	3	55	M	15	10	9	14	2	50
18	F	16	10	10	10	2	48	F	14	10	12	10	3	49
19	F	15	10	10	13	2	50	F	14	10	11	10	3	48
20	F	18	11	13	16	3	61	F	19	10	11	13	2	55
21	F	13	10	13	16	2	54	F	24	13	14	18	2	71
22	M	15	10	10	13	3	51	M	17	10	12	14	2	55
23	M	15	10	8	11	2	46	M	14	11	12	13	2	52
24	F	16	12	11	12	3	54	F	15	10	11	10	3	49
25	F	18	10	8	13	2	51	F	15	10	10	10	2	47
26	F	16	12	14	13	3	58	F	15	10	10	13	2	50
27	F	15	10	11	11	3	50	F	14	11	10	10	3	48
28	M	14	10	14	14	3	55	M	15	10	10	10	2	47
29	F	19	13	17	18	4	71	F	15	10	11	12	3	51
30	F	15	8	10	10	2	45	F	15	10	9	14	2	50

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ተ.ቂ.ፆታ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	አማካይ	
1 M	4	3	4	3	5	5	4	5	2	5	5	5	5	3	2	5	5	5	1	5	4	4	2	2	2	5	2	5	2	2	2	2	2	1	5	5	1	3.4864865	
2 F	5	5	4	5	4	4	5	2	2	5	4	5	4	1	3	4	5	4	3	5	4	3	5	5	3	5	4	4	5	5	2	2	3	4	5	4	3	3.9189189	
3 F	3	5	4	4	1	1	1	2	5	1	3	3	2	2	1	5	4	4	1	3	4	1	1	1	2	1	1	2	4	4	3	2	1	1	1	1	1	2.3243243	
4 M	5	4	3	2	5	5	4	4	1	4	5	5	4	3	3	5	4	4	3	5	4	4	3	5	4	4	1	2	4	4	3	3	3	3	5	2	4	3.6756757	
5 M	4	5	4	4	1	4	4	4	1	4	4	5	4	3	2	4	2	2	1	4	4	4	4	4	4	5	4	4	2	5	4	4	4	2	3	2	3	3.4594595	
6 F	5	5	4	5	4	4	5	4	4	5	5	5	2	4	5	4	4	4	4	5	4	4	4	4	4	4	5	1	1	5	1	5	4	4	4	1	1	3.8648649	
7 F	3	2	3	2	4	4	1	1	1	5	5	5	1	2	4	4	5	4	2	4	1	3	2	3	2	2	1	4	2	4	2	2	2	2	5	1	3	2.7837838	
8 M	4	5	4	1	2	2	4	2	1	4	5	3	5	3	2	3	4	2	2	4	5	3	4	5	3	5	1	3	2	3	1	5	1	1	2	3	2	3	
9 F	4	5	2	4	1	5	2	5	1	5	4	5	2	3	2	5	5	4	1	5	4	2	3	4	3	5	1	5	5	2	1	1	2	1	2	1	1	3.0540541	
10 F	3	2	1	1	4	4	2	1	1	2	1	2	4	2	1	1	5	5	1	2	3	2	1	2	1	2	1	5	2	3	1	1	2	1	4	3	3	2.2162162	
11 M	4	1	3	3	4	3	4	3	2	4	5	5	4	3	2	4	5	4	2	2	4	3	4	5	5	5	2	4	3	4	2	3	4	2	4	5	1	3.4324324	
12 M	2	2	3	3	4	5	2	2	2	3	1	3	2	5	2	2	2	3	1	3	2	3	2	3	2	5	1	4	2	2	2	1	3	1	2	1	2	2.4324324	
13 M	4	2	2	4	4	4	2	3	2	2	4	2	1	5	4	4	4	4	3	3	4	4	5	4	5	5	3	5	4	5	2	3	5	3	2	2	5	3.4864865	
14 F	2	3	1	3	3	3	2	1	2	3	1	1	4	1	1	2	3	4	1	1	2	1	2	3	2	2	2	3	2	3	2	2	2	1	3	5	4	2.2432432	
15 M	4	5	1	2	1	1	2	3	1	3	4	4	5	3	3	4	1	2	2	4	3	3	4	4	3	2	3	3	3	3	3	4	2	2	5	2	3	2.8918919	
16 F	5	3	4	4	1	4	4	4	1	4	5	5	4	4	4	4	4	4	5	4	4	4	5	5	4	5	4	5	5	5	4	4	3	3	5	3	2	3.972973	
17 F	3	4	3	3	1	2	3	4	2	4	3	5	4	1	3	4	3	1	1	4	4	5	5	3	4	5	2	4	5	4	2	3	4	1	5	3	2	3.2162162	
18 M	3	5	1	5	4	5	5	5	3	5	5	5	2	4	4	3	5	4	1	4	5	1	3	5	5	5	4	5	5	5	5	4	5	1	5	1	1	3.8648649	
19 M	5	5	2	4	5	5	4	5	4	2	5	4	2	2	2	5	5	1	1	4	5	4	1	4	5	5	4	5	4	4	4	4	1	1	5	4	4	3.6756757	
20 M	5	5	4	4	5	4	5	4	1	4	5	5	5	4	4	5	5	5	1	5	4	4	2	1	3	4	1	5	2	5	1	2	5	1	5	5	3	3.7297297	
21 F	3	2	4	5	2	5	3	2	1	5	4	4	2	5	1	4	5	5	2	4	4	3	1	3	3	3	1	2	3	4	2	2	3	1	2	1	2	2.9189189	
22 F	5	4	3	4	3	2	4	5	2	4	5	5	5	5	4	1	5	4	1	5	4	5	4	5	5	5	5	5	1	4	3	4	5	3	5	4	5	4	
23 M	3	4	3	1	4	5	2	5	5	5	5	5	3	4	4	5	5	1	4	5	2	4	4	3	1	2	1	4	5	2	4	1	2	1	2	1	4	3.2702703	
24 F	5	3	3	4	1	3	4	5	3	4	5	5	4	5	4	5	5	4	3	5	3	5	4	4	4	4	4	5	3	4	4	4	4	4	4	5	1	3	3.9189189
25 M	5	5	4	4	4	5	5	4	2	2	4	5	4	5	1	4	4	3	3	1	2	3	3	4	4	5	3	2	1	3	5	1	1	4	4	1	4	3.3513514	
26 F	3	2	3	3	4	4	5	5	4	3	5	5	4	2	1	5	5	3	2	5	4	3	2	5	5	4	3	5	4	4	5	2	3	3	5	4	3	3.7027027	
27 M	5	5	5	5	4	4	5	4	3	5	5	4	4	5	5	5	5	5	1	4	1	1	2	1	1	1	1	3	1	1	5	5	4	1	1	1	3	3.2702703	
28 M	4	5	1	1	2	1	5	4	2	2	5	2	3	3	5	5	2	2	1	5	5	3	4	1	2	2	1	5	1	4	4	5	5	1	5	5	3	3.1351351	
29 F	5	4	5	1	4	5	4	5	4	5	5	5	5	4	1	5	5	5	4	5	4	1	4	1	5	5	5	1	4	5	3	5	1	4	1	1	1	3.7027027	
30 F	4	4	1	4	5	5	5	5	3	5	4	5	5	4	4	4	3	4	3	4	3	4	4	5	3	5	3	4	4	1	4	3	4	4	4	2	3	3.8108108	

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የተ.ኮድ	አራማ1	አራማ2	አራማ3	አማካይ	የተ.ኮድ	አራማ1	አራማ2	አራማ3	አማካይ
ቁጥተ1	69	81	67	72.33333333	ቁጥተ1	47	49	63	53
ቁጥተ2	54	61	51	55.33333333	ቁጥተ2	57	65	84	68.66666667
ቁጥተ3	50	63	54	55.66666667	ቁጥተ3	52	61	69	60.66666667
ቁጥተ4	47	58	50	51.66666667	ቁጥተ4	56	53	71	60
ቁጥተ5	54	63	54	57	ቁጥተ5	52	56	57	55
ቁጥተ6	46	59	47	50.66666667	ቁጥተ6	57	62	74	64.33333333
ቁጥተ7	48	59	46	51	ቁጥተ7	34	51	46	43.66666667
ቁጥተ8	50	57	48	51.66666667	ቁጥተ8	51	55	67	57.66666667
ቁጥተ9	51	61	51	54.33333333	ቁጥተ9	59	60	74	64.33333333
ቁጥተ10	46	55	45	48.66666667	ቁጥተ10	60	61	71	64
ቁጥተ11	50	60	45	51.66666667	ቁጥተ11	66	61	78	68.33333333
ቁጥተ12	55	63	49	55.66666667	ቁጥተ12	47	50	50	49
ቁጥተ13	79	77	71	75.66666667	ቁጥተ13	51	49	56	52
ቁጥተ14	48	59	50	52.33333333	ቁጥተ14	61	58	71	63.33333333
ቁጥተ15	49	63	55	55.66666667	ቁጥተ15	60	56	56	57.33333333
ቁጥተ16	47	63	51	53.66666667	ቁጥተ16	56	59	68	61
ቁጥተ17	45	53	50	49.33333333	ቁጥተ17	57	58	65	60
ቁጥተ18	54	66	60	60	ቁጥተ18	67	71	78	72
ቁጥተ19	55	65	54	58	ቁጥተ19	58	53	64	58.33333333
ቁጥተ20	51	55	51	52.33333333	ቁጥተ20	65	59	69	64.33333333
ቁጥተ21	51	59	46	52	ቁጥተ21	56	59	63	59.33333333
ቁጥተ22	50	60	48	52.66666667	ቁጥተ22	56	51	52	53
ቁጥተ23	57	63	55	58.33333333	ቁጥተ23	51	47	51	49.66666667
ቁጥተ24	53	47	51	50.33333333	ቁጥተ24	62	62	73	65.66666667
ቁጥተ25	49	60	50	53	ቁጥተ25	49	55	56	53.33333333
ቁጥተ26	47	51	49	49	ቁጥተ26	51	55	62	56
ቁጥተ27	49	50	62	53.66666667	ቁጥተ27	57	60	73	63.33333333
ቁጥተ28	52	53	64	56.33333333	ቁጥተ28	69	70	83	74
ቁጥተ29	53	50	61	54.66666667	ቁጥተ29	54	50	50	51.33333333
ቁጥተ30	55	63	51	56.33333333	ቁጥተ30	58	55	63	58.66666667
ቁጥተ31	58	51	58	55.66666667	ቁጥተ31	45	49	44	46
ቁጥተ32	71	84	73	76	ቁጥተ32	53	49	62	54.66666667
ቁጥተ33	51	51	61	54.33333333	ቁጥተ33	56	59	66	60.33333333
ቁጥተ34	47	61	47	51.66666667	ቁጥተ34	58	58	65	60.33333333
ቁጥተ35	53	48	65	55.33333333	ቁጥተ35	60	63	72	65
ቁጥተ36	51	60	47	52.66666667	ቁጥተ36	56	59	57	57.33333333
ቁጥተ37	40	50	43	44.33333333	ቁጥተ37	64	56	52	57.33333333
ቁጥተ38	57	72	59	62.66666667	ቁጥተ38	57	60	62	59.66666667
ቁጥተ39	54	63	53	56.66666667	ቁጥተ39	54	58	58	56.66666667

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የተ.ኮድ	አራሚ1	አራሚ2	አራሚ3	አማካይ	የተ.ኮድ	አራሚ1	አራሚ2	አራሚ3	አማካይ
ቁቅM1	69	81	67	72.33333333	ቁቅM1	52	61	69	60.66666667
ቁቅM2	54	61	51	55.33333333	ቁቅM2	57	62	74	64.33333333
ቁቅM3	50	63	54	55.66666667	ቁቅM3	59	60	74	64.33333333
ቁቅM4	51	61	51	54.33333333	ቁቅM4	60	61	71	64
ቁቅM5	79	77	71	75.66666667	ቁቅM5	66	61	78	68.33333333
ቁቅM6	48	59	50	52.33333333	ቁቅM6	47	50	50	49
ቁቅM7	47	63	51	53.66666667	ቁቅM7	61	58	71	63.33333333
ቁቅM8	45	53	50	49.33333333	ቁቅM8	67	71	78	72
ቁቅM9	54	66	60	60	ቁቅM9	65	59	69	64.33333333
ቁቅM10	51	55	51	52.33333333	ቁቅM10	56	59	63	59.33333333
ቁቅM11	49	60	50	53	ቁቅM11	51	47	51	49.66666667
ቁቅM12	47	51	49	49	ቁቅM12	62	62	73	65.66666667
ቁቅM13	49	50	62	53.66666667	ቁቅM13	49	55	56	53.33333333
ቁቅM14	52	53	64	56.33333333	ቁቅM14	54	50	50	51.33333333
ቁቅM15	53	50	61	54.66666667	ቁቅM15	45	49	44	46
ቁቅM16	58	51	58	55.66666667	ቁቅM16	53	49	62	54.66666667
ቁቅM17	53	48	65	55.33333333	ቁቅM17	56	59	66	60.33333333
ቁቅM18	51	60	47	52.66666667	ቁቅM18	58	58	65	60.33333333
ቁቅM19	57	72	59	62.66666667	ቁቅM19	60	63	72	65
ቁቅM20	54	63	53	56.66666667	ቁቅM20	64	56	52	57.33333333

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የተ.ኮድ	አራማ1	አራማ2	አራማ3	አማካይ	የተ.ኮድ	አራማ1	አራማ2	አራማ3	አማካይ
ቁቅF1	47	58	50	51.66666667	ቁቅF1	47	49	63	53
ቁቅF2	54	63	54	57	ቁቅF2	57	65	84	68.66666667
ቁቅF3	46	59	47	50.66666667	ቁቅF3	56	53	71	60
ቁቅF4	48	59	46	51	ቁቅF4	52	56	57	55
ቁቅF5	50	57	48	51.66666667	ቁቅF5	34	51	46	43.66666667
ቁቅF6	46	55	45	48.66666667	ቁቅF6	51	55	67	57.66666667
ቁቅF7	50	60	45	51.66666667	ቁቅF7	51	49	56	52
ቁቅF8	55	63	49	55.66666667	ቁቅF8	60	56	56	57.33333333
ቁቅF9	49	63	55	55.66666667	ቁቅF9	56	59	68	61
ቁቅF10	55	65	54	58	ቁቅF10	57	58	65	60
ቁቅF11	51	59	46	52	ቁቅF11	58	53	64	58.33333333
ቁቅF12	50	60	48	52.66666667	ቁቅF12	56	51	52	53
ቁቅF13	57	63	55	58.33333333	ቁቅF13	51	55	62	56
ቁቅF14	53	47	51	50.33333333	ቁቅF14	57	60	73	63.33333333
ቁቅF15	55	63	51	56.33333333	ቁቅF15	69	70	83	74
ቁቅF16	71	84	73	76	ቁቅF16	58	55	63	58.66666667
ቁቅF17	51	51	61	54.33333333	ቁቅF17	56	59	57	57.33333333
ቁቅF18	47	61	47	51.66666667	ቁቅF18	57	60	62	59.66666667
ቁቅF19	40	50	43	44.33333333	ቁቅF19	54	58	58	56.66666667

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የተ.ኮድ	አራሚ1	አራሚ2	አራሚ3	አማካይ	የተ.ኮድ	አራሚ1	አራሚ2	አራሚ3	አማካይ
ሙቅተ1	47	52	66	55	ሙድተ1	81	69	87	79
ሙቅተ2	52	58	63	57.66666667	ሙድተ2	73	73	81	75.66666667
ሙቅተ3	56	47	52	51.66666667	ሙድተ3	78	79	83	80
ሙቅተ4	48	56	40	48	ሙድተ4	55	58	66	59.66666667
ሙቅተ5	51	57	48	52	ሙድተ5	50	57	62	56.33333333
ሙቅተ6	58	54	59	57	ሙድተ6	54	58	68	60
ሙቅተ7	56	67	45	56	ሙድተ7	75	75	94	81.33333333
ሙቅተ8	53	70	60	61	ሙድተ8	81	78	87	82
ሙቅተ9	78	69	64	70.33333333	ሙድተ9	52	67	64	61
ሙቅተ10	62	68	63	64.33333333	ሙድተ10	46	44	57	49
ሙቅተ11	64	63	52	59.66666667	ሙድተ11	56	55	67	59.33333333
ሙቅተ12	47	60	53	53.33333333	ሙድተ12	52	54	63	56.33333333
ሙቅተ13	48	60	46	51.33333333	ሙድተ13	58	56	62	58.66666667
ሙቅተ14	49	57	50	52	ሙድተ14	60	61	67	62.66666667
ሙቅተ15	48	50	40	46	ሙድተ15	64	57	74	65
ሙቅተ16	51	63	53	55.66666667	ሙድተ16	59	57	62	59.33333333
ሙቅተ17	47	59	52	52.66666667	ሙድተ17	69	64	88	73.66666667
ሙቅተ18	54	54	57	55	ሙድተ18	67	70	86	74.33333333
ሙቅተ19	49	55	45	49.66666667	ሙድተ19	86	88	99	91
ሙቅተ20	57	59	61	59	ሙድተ20	75	73	89	79
ሙቅተ21	53	64	63	60	ሙድተ21	48	53	53	51.33333333
ሙቅተ22	46	46	56	49.33333333	ሙድተ22	55	53	62	56.66666667
ሙቅተ23	59	58	54	57	ሙድተ23	56	50	63	56.33333333
ሙቅተ24	65	77	63	68.33333333	ሙድተ24	51	56	54	53.66666667
ሙቅተ25	53	63	52	56	ሙድተ25	60	54	64	59.33333333
ሙቅተ26	52	66	59	59	ሙድተ26	72	67	85	74.66666667
ሙቅተ27	52	61	56	56.33333333	ሙድተ27	75	83	95	84.33333333
ሙቅተ28	50	49	47	48.66666667	ሙድተ28	79	71	90	80
ሙቅተ29	55	59	51	55	ሙድተ29	69	76	89	78
ሙቅተ30	56	66	53	58.33333333	ሙድተ30	67	63	74	68
ሙቅተ31	52	58	53	54.33333333	ሙድተ31	71	71	88	76.66666667
ሙቅተ32	57	59	55	57	ሙድተ32	65	70	82	72.33333333
ሙቅተ33	58	50	52	53.33333333	ሙድተ33	62	64	66	64
ሙቅተ34	50	46	48	48	ሙድተ34	58	64	66	62.66666667
ሙቅተ35	57	47	49	51	ሙድተ35	58	59	65	60.66666667
ሙቅተ36	69	66	59	64.66666667	ሙድተ36	57	60	65	60.66666667
ሙቅተ37	53	54	66	57.66666667	ሙድተ37	77	66	70	71
ሙቅተ38	56	54	63	57.66666667	ሙድተ38	57	59	68	61.33333333
ሙቅተ39	68	67	65	66.66666667	ሙድተ39	58	62	68	62.66666667

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የተ.ኮድ	አራማ1	አራማ2	አራማ3	አማካይ	የተ.ኮድ	አራማ1	አራማ2	አራማ3	አማካይ
ሙቅM1	47	52	66	55	ሙድM1	81	69	87	79
ሙቅM2	51	57	48	52	ሙድM2	73	73	81	75.66666667
ሙቅM3	53	70	60	61	ሙድM3	78	79	83	80
ሙቅM4	62	68	63	64.33333333	ሙድM4	55	58	66	59.66666667
ሙቅM5	47	60	53	53.33333333	ሙድM5	81	78	87	82
ሙቅM6	49	57	50	52	ሙድM6	52	54	63	56.33333333
ሙቅM7	48	50	40	46	ሙድM7	60	61	67	62.66666667
ሙቅM8	47	59	52	52.66666667	ሙድM8	64	57	74	65
ሙቅM9	54	54	57	55	ሙድM9	59	57	62	59.33333333
ሙቅM10	49	55	45	49.66666667	ሙድM10	69	64	88	73.66666667
ሙቅM11	59	58	54	57	ሙድM11	48	53	53	51.33333333
ሙቅM12	65	77	63	68.33333333	ሙድM12	56	50	63	56.33333333
ሙቅM13	55	59	51	55	ሙድM13	72	67	85	74.66666667
ሙቅM14	56	66	53	58.33333333	ሙድM14	75	83	95	84.33333333
ሙቅM15	58	50	52	53.33333333	ሙድM15	79	71	90	80
ሙቅM16	50	46	48	48	ሙድM16	69	76	89	78
ሙቅM17	69	66	59	64.66666667	ሙድM17	65	70	82	72.33333333
ሙቅM18	53	54	66	57.66666667	ሙድM18	62	64	66	64
ሙቅM19	56	54	63	57.66666667	ሙድM19	57	60	65	60.66666667
ሙቅM20	68	67	65	66.66666667	ሙድM20	58	62	68	62.66666667

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የተ.ክድ	አራሚ1	አራሚ2	አራሚ3	አማካይ	የተ.ክድ	አራሚ1	አራሚ2	አራሚ3	አማካይ
ሙቅF1	52	58	63	57.66666667	ሙድF1	50	57	62	56.33333333
ሙቅF2	56	47	52	51.66666667	ሙድF2	54	58	68	60
ሙቅF3	48	56	40	48	ሙድF3	75	75	94	81.33333333
ሙቅF4	58	54	59	57	ሙድF4	52	67	64	61
ሙቅF5	56	67	45	56	ሙድF5	46	44	57	49
ሙቅF6	78	69	64	70.33333333	ሙድF6	56	55	67	59.33333333
ሙቅF7	64	63	52	59.66666667	ሙድF7	58	56	62	58.66666667
ሙቅF8	48	60	46	51.33333333	ሙድF8	67	70	86	74.33333333
ሙቅF9	51	63	53	55.66666667	ሙድF9	86	88	99	91
ሙቅF10	57	59	61	59	ሙድF10	75	73	89	79
ሙቅF11	53	64	63	60	ሙድF11	55	53	62	56.66666667
ሙቅF12	46	46	56	49.33333333	ሙድF12	51	56	54	53.66666667
ሙቅF13	53	63	52	56	ሙድF13	60	54	64	59.33333333
ሙቅF14	52	66	59	59	ሙድF14	67	63	74	68
ሙቅF15	52	61	56	56.33333333	ሙድF15	71	71	88	76.66666667
ሙቅF16	50	49	47	48.66666667	ሙድF16	58	64	66	62.66666667
ሙቅF17	52	58	53	54.33333333	ሙድF17	58	59	65	60.66666667
ሙቅF18	57	59	55	57	ሙድF18	77	66	70	71
ሙቅF19	57	47	49	51	ሙድF19	57	59	68	61.33333333

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1M	1	1	1	5	1	1	5	5	5	5	5	5	1	1	1	5	5	5	1	5	5	5	5	5	5	5	1	4	5	5	3	1	1	5	1	1	
2F	4	3	2	3	5	5	4	4	3	2	4	2	3	3	5	4	5	4	3	5	3	4	5	5	4	5	2	4	3	5	4	4	4	3	5	1	5
3M	4	3	1	3	5	5	2	5	1	5	5	4	3	5	4	5	3	4	1	4	3	1	1	5	4	5	1	5	5	4	3	3	2	1	1	5	3
4F	3	4	3	3	4	4	3	3	2	3	4	4	1	4	1	4	5	4	3	4	3	1	3	4	3	4	3	5	4	3	3	4	4	3	2	3	2
5F	3	3	4	5	2	4	4	5	4	3	4	4	3	2	3	3	4	3	1	3	3	4	3	5	4	5	2	3	3	1	4	4	3	5	5	3	3
6F	4	5	3	4	5	2	3	1	4	2	4	5	1	4	1	1	5	4	4	3	1	2	4	1	3	2	1	4	4	2	2	4	3	2	4	4	2
7M	4	3	4	1	3	5	5	4	3	5	4	4	3	5	3	4	2	4	2	4	4	3	4	4	4	3	2	3	4	4	4	4	2	1	5	2	2
8M	3	3	4	3	5	5	3	4	3	4	5	3	5	3	3	5	5	4	1	3	4	3	5	3	4	5	2	5	3	3	5	3	3	2	4	3	1
9M	3	4	3	4	4	4	5	5	3	2	4	5	5	4	4	5	5	5	2	4	4	4	3	5	5	3	3	4	3	4	3	4	3	3	4	2	3
10M	3	4	2	2	2	4	3	5	4	5	3	3	5	4	4	4	3	4	3	3	2	4	3	4	2	3	4	3	4	2	3	5	3	4	3	2	3
11F	4	3	2	3	3	2	3	4	1	2	4	4	2	2	2	3	3	2	2	4	4	2	4	4	3	4	2	3	4	4	3	2	4	3	4	3	3
12M	4	5	3	3	1	2	4	3	5	5	5	5	3	2	2	1	4	2	2	1	4	3	2	5	2	4	5	3	4	1	1	2	3	1	1	3	2
13F	5	3	4	5	4	5	4	3	1	4	4	5	3	4	4	4	5	5	2	4	4	4	5	5	4	5	4	5	4	3	3	4	5	3	5	3	5
14M	5	4	4	4	2	5	3	3	4	5	4	5	5	3	4	5	5	5	4	5	4	5	5	5	3	4	5	3	1	4	4	5	5	3	4	5	5
15F	4	4	3	4	2	4	3	5	4	4	4	5	5	4	4	4	5	4	2	3	3	4	2	5	5	5	4	5	4	4	4	4	4	4	3	4	5
16F	5	4	4	3	5	4	3	4	4	5	4	5	2	5	4	5	4	3	4	4	5	4	4	3	4	5	4	5	5	4	5	3	4	5	2	5	5
17F	4	4	3	3	3	4	3	2	2	5	4	5	3	4	3	3	5	3	4	3	4	3	5	4	3	5	4	5	3	3	4	3	4	3	1	4	3
18M	4	5	4	3	5	4	5	4	3	5	4	5	4	2	1	4	4	3	1	4	4	2	3	4	3	4	1	3	3	4	2	1	3	2	5	2	1
19F	5	2	3	1	3	2	1	2	3	5	2	2	3	3	1	2	5	5	2	1	2	1	2	2	1	5	1	5	2	2	3	3	2	1	1	2	2
20F	4	5	3	3	4	2	3	2	1	3	4	4	1	3	2	4	5	3	3	4	4	2	4	2	1	3	4	4	3	3	1	3	1	1	5	1	1
21M	4	2	1	3	2	3	2	3	3	5	3	2	4	3	3	2	2	4	2	3	4	3	3	2	2	3	1	1	3	1	2	2	2	1	4	1	2
22F	5	2	4	4	4	5	1	3	1	4	5	3	5	2	3	4	5	3	3	4	4	4	4	1	5	4	3	5	3	3	3	4	5	2	4	3	2
23F	5	3	2	4	2	2	2	2	2	5	4	5	4	5	2	4	2	3	4	4	3	4	3	3	4	3	4	5	4	3	4	3	2	4	4	4	2
24M	3	5	5	4	4	5	3	5	3	3	4	5	5	5	1	3	5	4	1	5	5	3	5	3	4	4	3	5	5	4	5	4	5	3	5	3	5
25M	5	4	4	3	1	2	4	5	3	5	5	4	5	3	5	3	1	2	1	4	3	4	3	4	5	1	3	4	5	5	4	3	2	3	5	1	5
26F	4	5	3	4	5	5	5	1	5	5	1	3	4	1	1	5	2	4	1	3	4	3	4	3	2	4	3	3	2	3	4	3	3	2	2	3	3

27M	5	5	4	4	5	4	4	4	3	5	5	5	1	4	5	5	5	5	3	5	5	3	4	3	5	4	3	4	5	5	3	3	3	3	5	1	3
28M	4	3	4	3	3	5	4	5	3	5	4	5	4	4	5	4	4	3	5	3	3	4	3	3	4	4	4	3	3	4	1	4	3	4	5	3	5
29M	4	5	4	2	3	5	4	4	1	5	4	3	1	1	2	3	4	3	1	2	3	2	1	1	4	1	3	1	5	4	1	3	5	2	5	3	2
30F	5	4	5	3	5	1	5	5	3	5	5	5	5	4	4	5	5	5	1	4	5	5	4	3	1	5	1	4	5	5	3	3	1	3	1	1	1
31F	4	3	4	5	4	5	4	4	1	4	4	5	4	4	2	4	5	4	3	5	3	4	4	5	4	4	1	3	3	4	3	3	3	2	4	1	3
32M	4	5	3	5	3	5	4	5	3	4	4	5	4	5	2	3	5	5	2	4	4	3	4	4	4	5	4	5	4	5	1	4	4	3	4	3	3
33F	5	4	3	3	2	1	2	5	2	5	4	5	4	5	3	3	5	3	1	3	4	2	3	4	3	4	1	2	1	3	4	2	1	3	5	5	4
34M	5	4	4	4	5	4	4	3	3	5	5	4	4	4	3	4	3	4	4	3	4	4	3	3	4	4	5	5	5	5	4	4	5	4	1	4	3
35M	5	5	4	3	1	5	5	1	1	4	5	5	1	4	5	4	2	2	4	5	2	3	1	4	1	4	1	4	2	2	1	2	5	4	2	5	2
36F	4	3	4	4	1	1	4	4	1	4	4	4	1	1	1	3	3	2	2	4	4	4	4	2	4	4	1	4	4	4	3	4	3	3	5	2	2
37M	3	1	2	1	3	3	2	1	2	5	2	2	1	2	2	3	2	1	2	1	2	2	2	2	3	2	3	2	2	3	1	1	2	1	1	2	5
38M	4	5	5	4	4	4	4	5	3	4	5	4	5	4	3	4	4	4	3	4	3	4	4	3	4	4	5	4	4	5	4	4	3	3	5	5	3
39F	5	5	4	4	4	3	5	4	4	3	2	5	4	3	4	4	4	5	4	3	3	4	1	3	5	4	5	3	1	4	1	4	5	3	2	4	4

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1F		5	4	4	3	3	4	5	3	1	5	5	2	1	1	1	1	4	3	3	5	4	4	4	3	4	5	3	5	4	5	5	3	3	2	4	3	3
2F		4	5	5	4	2	5	4	5	3	3	5	4	3	2	2	4	4	4	2	4	4	1	2	5	5	5	2	5	1		1	2	2	4	4	2	3
3F		4	5	5	3	5	2	1	4	2	3	4	4	5	4	5	4	4	2	3	5	5	4	4	2	4	5	1	5	4	4	3	2	3	3	1	3	4
4F		5	5	1	5	1	1	5	5	3	1	5	1	3	1	5	1	1	5	1	1	4	2	3	1	4	5	1	1	3	1	5	5	5	5	5	3	4
5F		5	4	2	5	4	4	5	5	2	4	5	2	3	4	2	4	5	4	2	4	3	4	4	3	1	4	5	4	2	2	1	3	4	4	4	2	4
6F		3	3	1	3	2	4	3	5	1	5	3	4	3	4	1	3	5	3	4	5	3	4	5	5	3	5	3	4	3	4	1	1	3	4	5	1	1
7F		4	4	3	3	2	5	3	3	2	4	5	4	4	3	3	4	4	3	1	5	4	3	2	4	3	3	2	4	4	3	4	4	3	2	2	3	3
8M		5	4	3	3	3	4	3	5	4	3	4	5	3	4	3	4	5	4	2	4	4	3	4	3	4	3	4	5	3	4	3	3	3	4	4	2	3
9F		4	2	2	2	1	4	1	5	1	2	2	4	1	2	2	4	5	1	2	4	1	1	4	5	4	1	1	4	1	4	2	4	2	2	1	2	2
10F		4	3	5	4	3	5	4	4	2	5	4	5	2	2	4	4	5	4	3	5	5	4	5	4	3	4	1	5	5	3	4	3	2	1	2	2	1
11M		3	5	4	3	2	3	2	1	2	1	3	3	1	5	3	3	4	3	1	3	4	3	3	4	3	4	1	3	4	3	3	1	4	1	2	2	1
12F		4	5	3	4	2	3	5	4	4	5	5	5	4	4	3	5	1	2	1	5	5	4	4	3	4	5	1	3	4	5	4	2	1	3	5	4	1
13M		2	3	3	4	1	1	1	3	4	4	4	1	3	3	3	1	5	5	4	1	3	2	1	5	3	5	1	5	1	5	5	5	4	5	5	1	1
14M		4	5	4	4	3	4	5	5	3	5	5	4	5	4	3	4	5	4	3	5	4	3	2	1	3	4	1	4	4	4	3	3	3	2	4	1	2
15M		4	5	3	4	4	4	4	3	2	4	3	3	4	3	4	3	4	3	3	4	3	3	4	4	3	5	3	4	3	3	3	2	4	3	5	3	4
16F		5	5	3	4	5	5	4	2	3	3	4	5	4	5	4	3	5	4	3	5	3	3	3	5	4	5	1	3	4	3	3	3	3	3	1	5	3
17M		4	3	1	4	3	5	4	5	1	5	5	5	5	1	1	5	5	1	1	4	1	2	3	4	3	4	1	4	5	3	2	1	3	5	4	1	1
18M		4	5	4	5	4	4	5	3	3	3	4	4	3	5	3	5	4	4	5	4	4	5	3	4	3	3	4	4	3	5	5	4	5	3	4	5	3
19M		3	2	3	4	2	4	3	4	1	3	4	4	3	2	2	4	3	4	3	4	5	3	4	4	3	3	2	4	4	4	3	2	3	2	3	2	3
20M		5	4	3	3	3	4	3	3	3	4	4	4	3	3	3	4	4	4	3	3	4	5	4	3	4	4	5	5	4	3	3	3	3	3	5	2	3
21M		4	3	3	4	2	5	5	3	1	3	4	5	5	3	1	5	4	4	5	3	3	4	4	5	2	5	3	3	3	5	3	4	5	3	4	3	4
22M		1	5	4	3	5	4	5	3	5	4	3	5	4	3	1	4	3	4	5	3	3	4	3	5	4	5	5	2	3	4	3	3	4	5	5	1	5
23M		3	3	3	3	5	4	3	4	1	4	3	4	4	3	3	4	4	4	3	3	1	3	3	3	5	1	3	4	3	3	4	4	3	2	4	1	3
24F		3	2	1	4	3	5	2	3	1	4	3	5	5	3	2	4	5	5	3	2	5	4	3	4	2	4	1	5	3	4	5	5	1	3	5	1	2
25F		5	5	3	1	2	3	3	4	1	3	3	3	2	1	2	4	1	1	3	5	5	4	3	1	3	1	1	1	2	5	2	3	3	1	5	5	1
26M		3	3	2	3	1	5	5	5	1	5	4	5	3	1	2	3	3	1	1	2	3	4	1	1	1	1	4	5	5	1	3	1	3	1	4	1	2

27F	4	4	3	4	5	5	4	5	2	4	4	5	1	4	3	5	5	3	2	4	3	3	4	4	3	4	4	4	3	3	3	3	4	2	5	3	4
28M	4	2	4	4	2	4	4	4	5	2	2	3	3	4	2	5	2	2	2	4	4	4	2	2	4	2	4	4	3	4	4	4	4	2	2	4	2
29F	4	2	3	2	1	5	4	3	1	5	4	3	3	2	4	3	3	4	2	3	3	4	4	5	4	4	5	4	3	4	4	3	4	1	5	1	5
30M	3	2	3	4	2	4	3	4	2	1	2	2	4	3	3	3	1	5	3	2	4	2	3	5	3	4	2	2	3	4	1	3	2	3	2	3	2
31M	3	4	3	4	1	2	3	4	2	5	4	4	4	3	2	4	3	2	2	4	3	3	5	3	4	3	2	3	4	3	3	4	3	2	5	3	2
32F	3	4	2	1	4	4	2	1	1	1	5	1	4	1	3	2	3	4	1	4	3	1	2	3	4	3	2	1	3	4	5	3	5	1	5	1	5
33F	2	1	4	1	1	5	1	3	1	5	3	5	1	1	1	5	3	1	5	5	5	2	3	1	3	4	2	1	3	1	5	1	2	3	5	5	2
34M	3	3	4	1	4	1	2	1	1	1	5	1	1	3	5	3	2	1	1	1	3	3	1	1	1	1	4	4	1	5	4	4	2	4	4	1	5
35M	4	3	3	2	2	2	3	3	3	4	3	3	3	3	3	3	4	3	3	3	2	4	3	3	2	2	5	3	3	4	3	3	3	2	1	1	5
36F	5	5	2	4	4	2	2	4	2	4	4	2	2	5	4	4	2	2	4	4	2	4	5	4	2	5	2	2	5	1	2	5	2	2	4	5	4
37M	3	2	3	1	2	5	4	3	3	4	3	3	2	3	3	5	4	1	4	1	2	1	4	2	4	1	3	1	4	2	1	3	1	1	5	1	2
38F	3	4	2	2	4	4	3	3	4	3	3	4	1	3	3	2	4	2	3	5	3	4	4	4	5	4	3	2	1	3	3	3	4	2	5	1	2
39M	4	3	3	5	3	5	4	2	4	4	5	5	1	4	4	5	4	3	3	4	3	4	4	5	2	4	2	4	3	5	3	3	3	2	3	1	5

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1M		1	1	1	5	1	1	5	5	5	5	5	5	1	1	1	5	5	5	1	5	5	5	5	5	5	5	1	4	5	5	3	1	1	5	1	1		
2M		4	3	1	3	5	5	2	5	1	5	5	4	3	5	4	5	3	4	1	4	3	1	1	5	4	5	1	5	5	4	3	3	2	1	1	5	3	
3M		4	3	4	1	3	5	5	4	3	5	4	4	3	5	3	4	2	4	2	4	4	3	4	4	4	3	2	3	4	4	4	4	2	1	5	2	2	
4M		3	3	4	3	5	5	3	4	3	4	5	3	5	3	3	5	5	4	1	3	4	3	5	3	4	5	2	5	3	3	5	3	3	2	4	3	1	
5M		3	4	3	4	4	4	5	5	3	2	4	5	5	4	4	5	5	5	2	4	4	4	3	5	5	3	3	4	3	4	3	4	3	3	4	2	3	
6M		3	4	2	2	2	4	3	5	4	5	3	3	5	4	4	4	3	4	3	3	2	4	3	4	2	3	4	3	4	2	3	5	3	4	3	2	3	
7M		4	5	3	3	1	2	4	3	5	5	5	5	3	2	2	1	4	2	2	1	4	3	2	5	2	4	5	3	4	1	1	2	3	1	1	3	2	
8M		5	4	4	4	2	5	3	3	4	5	4	5	5	3	4	5	5	5	4	5	4	5	5	5	3	4	5	3	1	4	4	5	5	3	4	5	5	
9M		4	5	4	3	5	4	5	4	3	5	4	5	4	2	1	4	4	3	1	4	4	2	3	4	3	4	1	3	3	4	2	1	3	2	5	2	1	
10M		4	2	1	3	2	3	2	3	3	5	3	2	4	3	3	2	2	4	2	3	4	3	3	2	2	3	1	1	3	1	2	2	2	1	4	1	2	
11M		3	5	5	4	4	5	3	5	3	3	4	5	5	5	1	3	5	4	1	5	5	3	5	3	4	4	3	5	5	4	5	4	5	3	5	3	5	
12M		5	4	4	3	1	2	4	5	3	5	5	4	5	3	5	3	1	2	1	4	3	4	3	4	5	1	3	4	5	5	4	3	2	3	5	1	5	
13M		5	5	4	4	5	4	4	4	3	5	5	5	1	4	5	5	5	5	3	5	5	3	4	3	5	4	3	4	5	5	3	3	3	3	5	1	3	
14M		4	3	4	3	3	5	4	5	3	5	4	5	4	4	5	4	4	3	5	3	3	4	3	3	4	4	4	3	3	4	1	4	3	4	5	3	5	
15M		4	5	4	2	3	5	4	4	1	5	4	3	1	1	2	3	4	3	1	2	3	2	1	1	4	1	3	1	5	4	1	3	5	2	5	3	2	
16M		4	5	3	5	3	5	4	5	3	4	4	5	4	5	2	3	5	5	2	4	4	3	4	4	4	5	4	5	4	5	1	4	4	3	4	3	3	
17M		5	4	4	4	5	4	4	3	3	5	5	4	4	4	3	4	3	4	4	3	4	4	3	3	4	4	5	5	5	5	5	4	4	5	4	1	4	3
18M		5	5	4	3	1	5	5	1	1	4	5	5	1	4	5	4	2	2	4	5	2	3	1	4	1	4	1	4	2	2	1	2	5	4	2	5	2	
19M		3	1	2	1	3	3	2	1	2	5	2	2	1	2	2	3	2	1	2	1	2	2	2	2	3	2	3	2	2	3	1	1	2	1	1	2	5	
20M		4	5	5	4	4	4	4	5	3	4	5	4	5	4	3	4	4	4	3	4	3	4	4	3	4	4	5	4	4	5	4	4	3	3	5	5	3	

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1M		5	4	3	3	3	4	3	5	4	3	4	5	3	4	3	4	5	4	2	4	4	3	4	3	4	3	4	5	3	4	3	3	3	4	4	2	3
2M		3	5	4	3	2	3	2	1	2	1	3	3	1	5	3	3	4	3	1	3	4	3	3	4	3	4	1	3	4	3	3	1	4	1	2	2	1
3M		2	3	3	4	1	1	1	3	4	4	4	1	3	3	3	1	5	5	4	1	3	2	1	5	3	5	1	5	1	5	5	5	4	5	5	1	1
4M		4	5	4	4	3	4	5	5	3	5	5	4	5	4	3	4	5	4	3	5	4	3	2	1	3	4	1	4	4	4	3	3	3	2	4	1	2
5M		4	5	3	4	4	4	4	3	2	4	3	3	4	3	4	3	4	3	3	4	3	3	4	4	3	5	3	4	3	3	3	2	4	3	5	3	4
6M		4	3	1	4	3	5	4	5	1	5	5	5	5	1	1	5	5	1	1	4	1	2	3	4	3	4	1	4	5	3	2	1	3	5	4	1	1
7M		4	5	4	5	4	4	5	3	3	3	4	4	3	5	3	5	4	4	5	4	4	5	3	4	3	3	4	4	3	5	5	4	5	3	4	5	3
8M		3	2	3	4	2	4	3	4	1	3	4	4	3	2	2	4	3	4	3	4	5	3	4	4	3	3	2	4	4	4	3	2	3	2	3	2	3
9M		5	4	3	3	3	4	3	3	3	4	4	4	3	3	3	4	4	4	3	3	4	5	4	3	4	4	5	5	4	3	3	3	3	3	5	2	3
10M		4	3	3	4	2	5	5	3	1	3	4	5	5	3	1	5	4	4	5	3	3	4	4	5	2	5	3	3	3	5	3	4	5	3	4	3	4
11M		1	5	4	3	5	4	5	3	5	4	3	5	4	3	1	4	3	4	5	3	3	4	3	5	4	5	5	2	3	4	3	3	4	5	5	1	5
12M		3	3	3	3	5	4	3	4	1	4	3	4	4	3	3	4	4	4	3	3	1	3	3	3	5	1	3	4	3	3	4	4	3	2	4	1	3
13M		3	3	2	3	1	5	5	5	1	5	4	5	3	1	2	3	3	1	1	2	3	4	1	1	1	1	4	5	5	1	3	1	3	1	4	1	2
14M		4	2	4	4	2	4	4	4	5	2	2	3	3	4	2	5	2	2	2	4	4	4	2	2	4	2	4	4	3	4	4	4	4	2	2	4	2
15M		3	2	3	4	2	4	3	4	2	1	2	2	4	3	3	3	1	5	3	2	4	2	3	5	3	4	2	2	3	4	1	3	2	3	2	3	2
16M		3	4	3	4	1	2	3	4	2	5	4	4	4	3	2	4	3	2	2	4	3	3	5	3	4	3	2	3	4	3	3	4	3	2	5	3	2
17M		3	3	4	1	4	1	2	1	1	1	5	1	1	3	5	3	2	1	1	1	3	3	1	1	1	1	4	4	1	5	4	4	2	4	4	1	5
18M		4	3	3	2	2	2	3	3	3	4	3	3	3	3	3	3	4	3	3	3	2	4	3	3	2	2	5	3	3	4	3	3	3	2	1	1	5
19M		3	2	3	1	2	5	4	3	3	4	3	3	2	3	3	5	4	1	4	1	2	1	4	2	4	1	3	1	4	2	1	3	1	1	5	1	2
20M		4	3	3	5	3	5	4	2	4	4	5	5	1	4	4	5	4	3	3	4	3	4	4	5	2	4	2	4	3	5	3	3	3	2	3	1	5

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1F		4	3	2	3	5	5	4	4	3	2	4	2	3	3	5	4	5	4	3	5	3	4	5	5	4	5	2	4	3	5	4	4	4	3	5	1	5
2F		3	4	3	3	4	4	3	3	2	3	4	4	1	4	1	4	5	4	3	4	3	1	3	4	3	4	3	5	4	3	3	4	4	3	2	3	2
3F		3	3	4	5	2	4	4	5	4	3	4	4	3	2	3	3	4	3	1	3	3	4	3	5	4	5	2	3	3	1	4	4	3	5	5	3	3
4F		4	5	3	4	5	2	3	1	4	2	4	5	1	4	1	1	5	4	4	3	1	2	4	1	3	2	1	4	4	2	2	4	3	2	4	4	2
5F		4	3	2	3	3	2	3	4	1	2	4	4	2	2	2	3	3	2	2	4	4	2	4	4	3	4	2	3	4	4	3	2	4	3	4	3	3
6F		5	3	4	5	4	5	4	3	1	4	4	5	3	4	4	4	5	5	2	4	4	4	5	5	4	5	4	5	4	3	3	4	5	3	5	3	5
7F		4	4	3	4	2	4	3	5	4	4	4	5	5	4	4	4	5	4	2	3	3	4	2	5	5	5	4	5	4	4	4	4	4	4	3	4	5
8F		5	4	4	3	5	4	3	4	4	5	4	5	2	5	4	5	4	3	4	4	5	4	4	3	4	5	4	5	5	4	5	3	4	5	2	5	5
9F		4	4	3	3	3	4	3	2	2	5	4	5	3	4	3	3	5	3	4	3	4	3	5	4	3	5	4	5	3	3	4	3	4	3	1	4	3
10F		5	2	3	1	3	2	1	2	3	5	2	2	3	3	1	2	5	5	2	1	2	1	2	2	1	5	1	5	2	2	3	3	2	1	1	2	2
11F		4	5	3	3	4	2	3	2	1	3	4	4	1	3	2	4	5	3	3	4	4	2	4	2	1	3	4	4	3	3	1	3	1	1	5	1	1
12F		5	2	4	4	4	5	1	3	1	4	5	3	5	2	3	4	5	3	3	4	4	4	4	1	5	4	3	5	3	3	3	4	5	2	4	3	2
13F		5	3	2	4	2	2	2	2	2	5	4	5	4	5	2	4	2	3	4	4	3	4	3	3	4	3	4	5	4	3	4	3	2	4	4	4	2
14F		4	5	3	4	5	5	5	1	5	5	1	3	4	1	1	5	2	4	1	3	4	3	4	3	2	4	3	3	2	3	4	3	3	2	2	3	3
15F		5	4	5	3	5	1	5	5	3	5	5	5	5	4	4	5	5	5	1	4	5	5	4	3	1	5	1	4	5	5	3	3	1	3	1	1	1
16F		4	3	4	5	4	5	4	4	1	4	4	5	4	4	2	4	5	4	3	5	3	4	4	5	4	4	1	3	3	4	3	3	3	2	4	1	3
17F		5	4	3	3	2	1	2	5	2	5	4	5	4	5	3	3	5	3	1	3	4	2	3	4	3	4	1	2	1	3	4	2	1	3	5	5	4
18F		4	3	4	4	1	1	4	4	1	4	4	4	1	1	1	3	3	2	2	4	4	4	4	2	4	4	1	4	4	4	3	4	3	3	5	2	2
19F		5	5	4	4	4	3	5	4	4	3	2	5	4	3	4	4	4	5	4	3	3	4	1	3	5	4	5	3	1	4	1	4	5	3	2	4	4

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1F		5	4	4	3	3	4	5	3	1	5	5	2	1	1	1	1	4	3	3	5	4	4	4	3	4	5	3	5	4	5	5	3	3	2	4	3	3
2F		4	5	5	4	2	5	4	5	3	3	5	4	3	2	2	4	4	4	2	4	4	1	2	5	5	5	2	5	1		1	2	2	4	4	2	3
3F		4	5	5	3	5	2	1	4	2	3	4	4	5	4	5	4	4	2	3	5	5	4	4	2	4	5	1	5	4	4	3	2	3	3	1	3	4
4F		5	5	1	5	1	1	5	5	3	1	5	1	3	1	5	1	1	5	1	1	4	2	3	1	4	5	1	1	3	1	5	5	5	5	5	3	4
5F		5	4	2	5	4	4	5	5	2	4	5	2	3	4	2	4	5	4	2	4	3	4	4	3	1	4	5	4	2	2	1	3	4	4	4	2	4
6F		3	3	1	3	2	4	3	5	1	5	3	4	3	4	1	3	5	3	4	5	3	4	5	5	3	5	3	4	3	4	1	1	3	4	5	1	1
7F		4	4	3	3	2	5	3	3	2	4	5	4	4	3	3	4	4	3	1	5	4	3	2	4	3	3	2	4	4	3	4	4	3	2	2	3	3
8F		4	2	2	2	1	4	1	5	1	2	2	4	1	2	2	4	5	1	2	4	1	1	4	5	4	1	1	4	1	4	2	4	2	2	1	2	2
9F		4	3	5	4	3	5	4	4	2	5	4	5	2	2	4	4	5	4	3	5	5	4	5	4	3	4	1	5	5	3	4	3	2	1	2	2	1
10F		4	5	3	4	2	3	5	4	4	5	5	5	4	4	3	5	1	2	1	5	5	4	4	3	4	5	1	3	4	5	4	2	1	3	5	4	1
11F		5	5	3	4	5	5	4	2	3	3	4	5	4	5	4	3	5	4	3	5	3	3	3	5	4	5	1	3	4	3	3	3	3	3	1	5	3
12F		3	2	1	4	3	5	2	3	1	4	3	5	5	3	2	4	5	5	3	2	5	4	3	4	2	4	1	5	3	4	5	5	1	3	5	1	2
13F		5	5	3	1	2	3	3	4	1	3	3	3	2	1	2	4	1	1	3	5	5	4	3	1	3	1	1	1	2	5	2	3	3	1	5	5	1
14F		4	4	3	4	5	5	4	5	2	4	4	5	1	4	3	5	5	3	2	4	3	3	4	4	3	4	4	4	3	3	3	3	4	2	5	3	4
15F		4	2	3	2	1	5	4	3	1	5	4	3	3	2	4	3	3	4	2	3	3	4	4	5	4	4	5	4	3	4	4	3	4	1	5	1	5
16F		3	4	2	1	4	4	2	1	1	1	5	1	4	1	3	2	3	4	1	4	3	1	2	3	4	3	2	1	3	4	5	3	5	1	5	1	5
17F		2	1	4	1	1	5	1	3	1	5	3	5	1	1	1	5	3	1	5	5	5	2	3	1	3	4	2	1	3	1	5	1	2	3	5	5	2
18F		5	5	2	4	4	2	2	4	2	4	4	2	2	5	4	4	2	2	4	4	2	4	5	4	2	5	2	2	5	1	2	5	2	2	4	5	4
19F		3	4	2	2	4	4	3	3	4	3	3	4	1	3	3	2	4	2	3	5	3	4	4	4	5	4	3	2	1	3	3	3	4	2	5	1	2

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1M	3	2	3	2	4	4	1	1	1	5	5	5	1	2	4	4	5	4	2	4	1	3	2	3	2	2	1	4	2	4	2	2	2	2	5	1	3	
2M	4	5	4	1	2	2	4	2	1	4	5	3	5	3	2	3	4	2	2	4	5	3	4	5	3	5	1	3	2	3	1	5	1	1	2	3	2	
3F	4	5	2	4	1	5	2	5	1	5	4	5	2	3	2	5	5	4	1	5	4	2	3	4	3	5	1	5	5	2	1	1	2	1	2	1	1	
4M	5	3	4	4	1	4	4	4	1	4	5	5	4	4	4	4	4	4	5	4	4	4	5	5	4	5	4	5	5	5	4	4	3	3	5	3	2	
5M	3	4	3	3	1	2	3	4	2	4	3	5	4	1	3	4	3	1	1	4	4	5	5	3	4	5	2	4	5	4	2	3	4	1	5	3	2	
6M	3	5	1	5	4	5	5	5	3	5	5	5	2	4	4	3	5	4	1	4	5	1	3	5	5	5	4	5	5	5	5	4	5	1	5	1	1	
7M	5	5	5	5	4	4	5	4	3	5	5	4	4	5	5	5	5	5	1	4	1	1	2	1	1	1	1	3	1	1	5	5	4	1	1	1	3	
8F	4	5	1	1	2	1	5	4	2	2	5	2	3	3	5	5	2	2	1	5	5	3	4	1	2	2	1	5	1	4	4	5	5	1	5	5	3	
9M	5	4	5	1	4	5	4	5	4	5	5	5	5	4	1	5	5	5	4	5	4	1	4	1	5	5	5	1	4	5	3	5	1	4	1	1	1	
10F	3	4	3	1	4	5	2	5	5	5	5	5	3	4	4	5	5	1	4	5	2	4	4	3	1	2	1	4	5	2	4	1	2	1	2	1	4	
11M	5	3	3	4	1	3	4	5	3	4	5	5	4	5	4	5	5	4	3	5	3	5	4	4	4	4	4	5	3	4	4	4	4	4	4	5	1	3
12F	5	5	4	4	4	5	5	4	2	2	4	5	4	5	1	4	4	3	3	1	2	3	3	4	4	5	3	2	1	3	5	1	1	4	4	1	4	
13F	3	2	3	3	4	4	5	5	4	3	5	5	4	2	1	5	5	3	2	5	4	3	2	5	5	4	3	5	4	4	5	2	3	3	5	4	3	
14M	4	5	1	2	1	1	2	3	1	3	4	4	5	3	3	4	1	2	2	4	3	3	4	4	3	2	3	3	3	3	3	4	2	2	5	2	3	
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37M	5	4	5	5	5	5	5	5	4	4	5	5	5	5	5	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	
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2M		4	5	4	1	2	2	4	2	1	4	5	3	5	3	2	3	4	2	2	4	5	3	4	5	3	5	1	3	2	3	1	5	1	1	2	3	2	
3M		5	3	4	4	1	4	4	4	1	4	5	5	4	4	4	4	4	5	4	4	4	5	5	4	5	4	5	5	5	4	4	3	3	5	3	2		
4M		3	4	3	3	1	2	3	4	2	4	3	5	4	1	3	4	3	1	1	4	4	5	5	3	4	5	2	4	5	4	2	3	4	1	5	3	2	
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12M		5	5	4	5	4	4	5	4	4	5	5	5	2	4	5	4	4	4	4	5	4	4	4	4	4	4	5	1	1	5	1	5	4	4	4	1	1	
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14M		2	3	1	3	3	3	2	1	2	3	1	1	4	1	1	2	3	4	1	1	2	1	2	3	2	2	2	3	2	3	2	2	2	2	1	3	5	4
15M		2	2	3	3	4	5	2	2	2	3	1	3	2	5	2	2	2	3	1	3	2	3	2	3	2	5	1	4	2	2	2	1	3	1	2	1	2	
16M		5	5	5	5	5	4	2	1	5	4	4	4	1	5	5	4	3	1	2	3	5	5	5	5	5	5	5	5	1	3	5	3	4	5	5	1	1	
17M		4	2	3	1	4	5	2	1	1	2	2	4	5	3	2	2	4	4	1	2	3	2	1	3	2	3	1	5	3	2	3	2	3	1	2	1	1	
18M		4	4	4	1	4	3	4	4	2	2	4	4	1	2	2	2	4	2	4	2	2	2	4	2	2	4	2	4	2	2	2	2	2	2	2	2	4	
19M		2	3	3	3	4	5	1	1	2	2	2	3	4	2	2	2	3	4	3	1	3	3	1	2	2	2	1	5	3	3	2	2	3	1	2	1	1	
20M		1	1	5	5	5	5	3	5	1	5	4	4	1	2	3	1	5	5	2	5	2	3	5	5	3	5	2	2	5	5	4	4	3	4	3	4	5	

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4M		5	3	3	4	4	5	4	5	4	4	5	3	5	5	4	5	4	5	4	5	4	5	1	2	4	5	3	5	3	4	4	3	4	3	5	2	3	
5M		4	5	5	5	4	4	5	3	5	4	5	4	5	4	5	4	5	3	3	4	5	4	5	3	2	5	3	4	5	4	3	5	2	4	1	5	5	
6M		5	5	4	4	3	5	5	4	4	4	5	5	4	5	2	4	5	4	1	4	5	4	4	5	4	5	1	4	5	5	4	4	5	4	5	2	5	
7M		5	3	4	4	1	5	4	5	4	5	5	5	5	4	3	5	5	5	5	4	5	4	4	5	5	4	5	5	5	4	4	3	5	3	5	5	5	
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15M		5	2	4	5	3	5	4	5	1	2	4	5	5	5	5	4	5	4	2	4	3	3	4	4	5	5	3	4	3	3	5	5	4	5	4	2	3	
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19M		5	4	4	5	4	5	4	3	4	3	5	4	4	5	3	3	5	3	4	5	5	4	5	4	4	4	5	4	5	5	4	5	4	4	5	4	3	
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1.1	/	169
1.2		170
1.3		170
1.4		171
	:-	172
2.1	(Project and Project Based Learning)	172
2.2		177
2.3		180
2.4		181
2.4.1		182
2.4.2		184
2.5		186
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(Project Based Learning)

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/Traditional approach/

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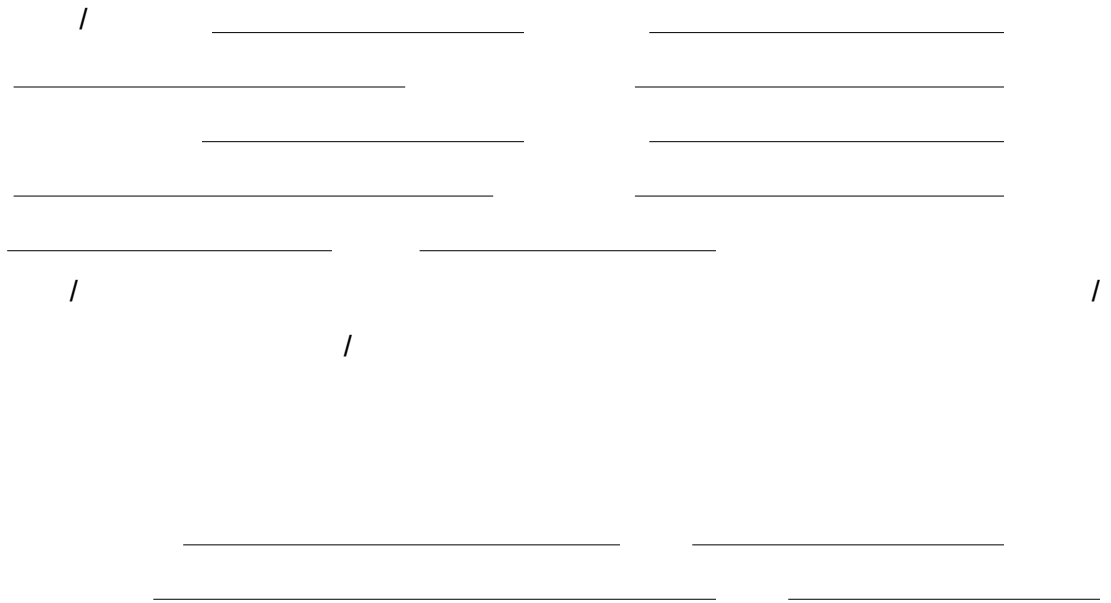
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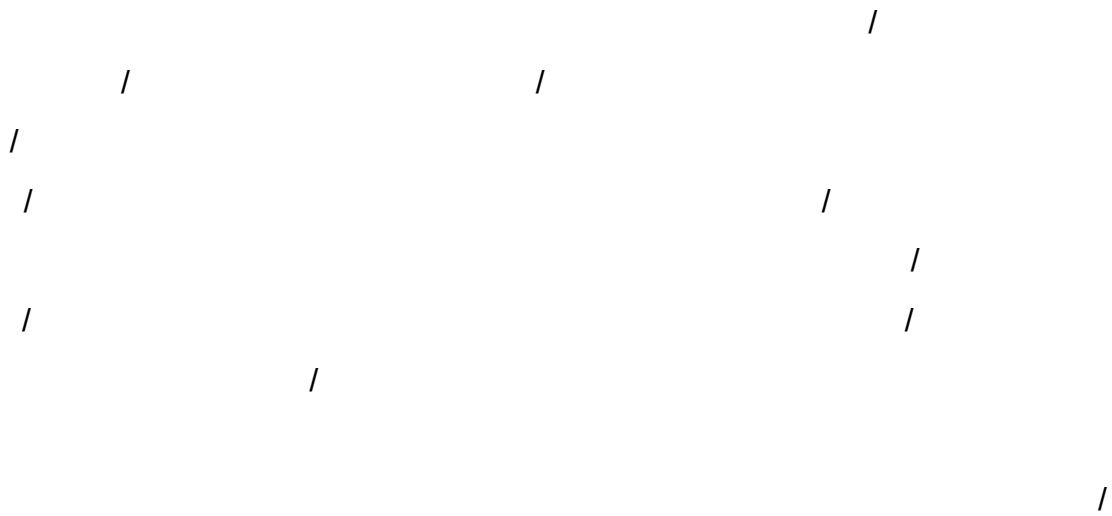
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Teach Thought Staff (2019)

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(Francis, 2018 Teach Thought Staff, 2019)

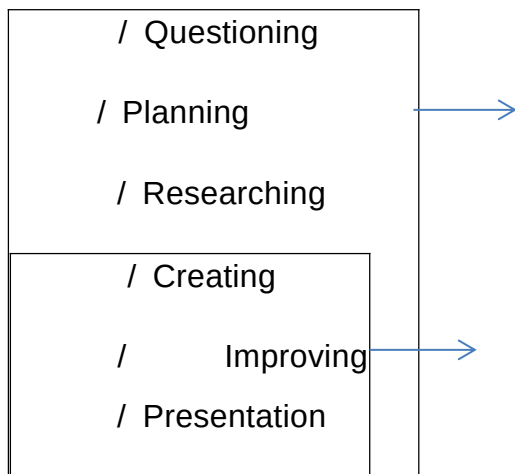
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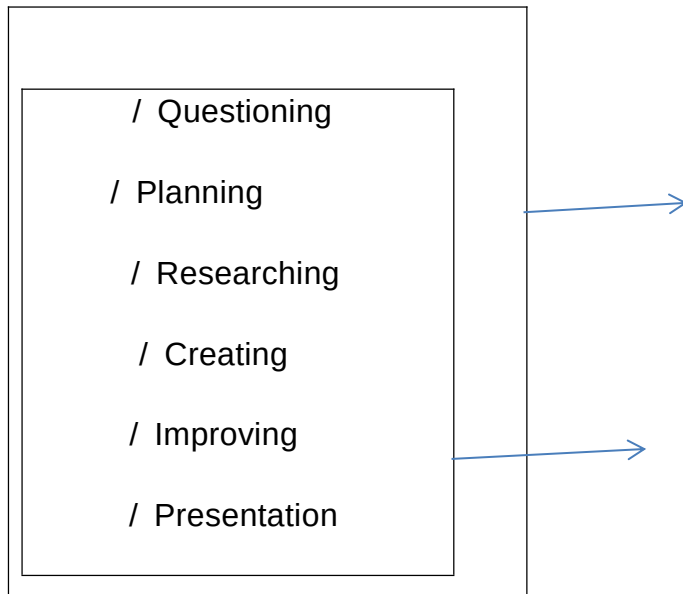
(10 2004)



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(Thoughtful learning Newsletter, 2020)

and problem solving/ (/Critical Thinking
/communication/ /collaboration/
/creativity and innovation/ (Stivers, 2010 Praba, et al.,
2018))



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(Thoughtful learning Newsletter, 2020)

(Thoughtful Learning Newsletter, 2020)

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2.2

(Kavlu, 2017

Kokotsaki, Menzies, and Wiggins (2016) (Cocoo 2006)

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(Simpson, 2011)

(Kavlu, 2017)

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(Kavlu, 2017

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(2009 .)

(Richards and Rodgers, 2001)

(Jacobs 1988)

(2009 . .)

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Perez, Garcia, Munoz,

Alonso, and Puche (2010)

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2.4

(Simpson, 2011)

2.4.1

/instructor/

(Littlewood, 1981 Larsen-Freeman, 1986 Nunan, 1989 Brown,
2000 Simpson, 2011)

(Simpson, 2011)

Nassir (2014)

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Simpson (2011)

/Rubric/

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/right or wrong answers/

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/cognitive/

/metacognitive/

(Blumenfeld, et al.,1991)

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(Simpson, 2011) Blumenfeld, et al. (1991)

Simpson (2011) Howard

(2002)

(Simpson, 2011 Gülbahar and Tinmaz, 2006)

(Simpson, 2011 Beckett & Slater, 2005)

(Simpson, 2011 Curtis, 2002)

(Kavlu, 2017)

2.4.2

(Larsen-Freeman, 1986 Nunan,

1989)

(Nunan, 1989)

(Simpson, 2011)

Murchú (2005) Simpson (2011)

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/as a self-directed learner
member/collaborator/

/as a team
/as a knowledge manager/leader/

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(Clark, 2006 Simpson, 2011)

(Murchú, 2005)

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(Simpson, 2011)

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(Murchú, 2005 Simpson,
2011)

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2.5

Simpson (2011) Sheppard & Stoller (1995)

Beckett & Slater (2005)

Simpson (2011)

✓ / /Gaining
language proficiency, self-efficacy and self-esteem/

✓ /Using real-life language and experiencing language in
meaningful life situations/

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Simpson (2011) Finch (2003) Johnson (2003) Markham et al., (2003)
Stanley (2000) Welsh (2006)

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(Ellis, 1994)
/ Simpson
(2011) Stanley (2000)

Newell (2003)

(Simpson, 2011)

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Melin, Axelsson and Wedlund (2006)

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/Project Task/

(Melin et al., 2006)

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/Relevant and Autentic/ -

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/Project Group/

Melin et al. (2006)

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/Examination/

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(Melin et al., 2006)

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/Feedback/

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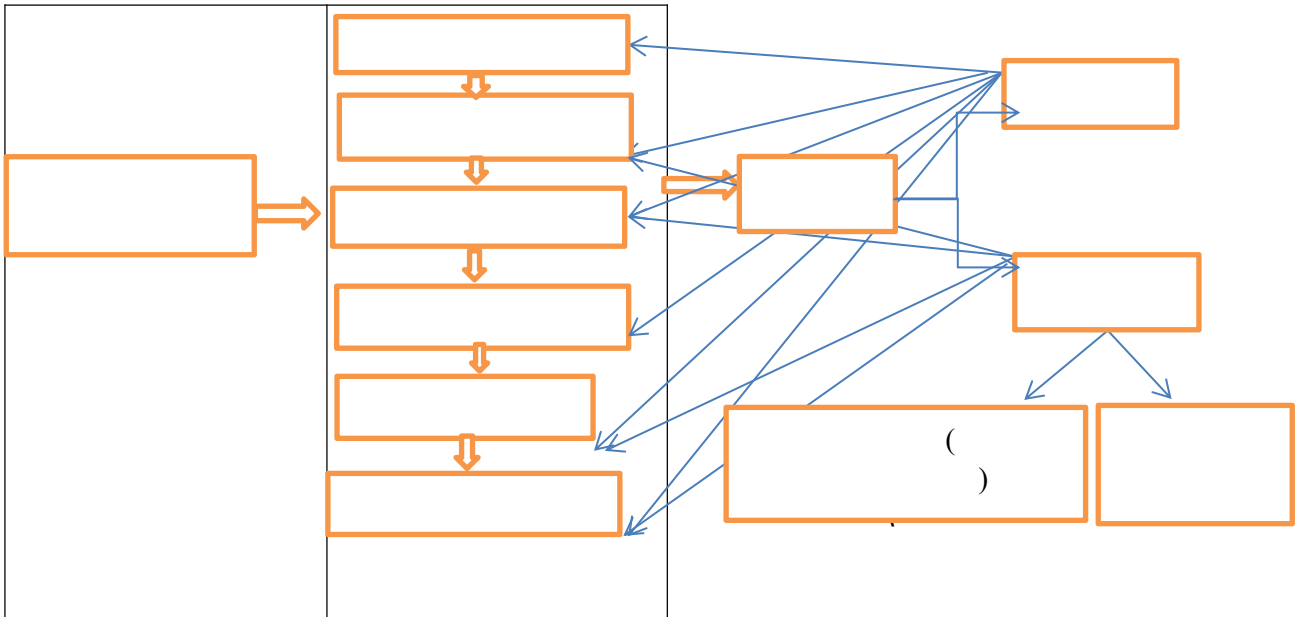
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46	46	14	17	18	16.333	46	19	17	19	18.3333
47	47	17	16	16	16.333	47	21	22	21	21.3333

' -

20% ()

.	.	1	2	3		.	1	2	3	
1	1	12	12	11	11.6667	1	13	13	14	13.3333
2	2	10	11	12	11	2	14	13	14	13.6667
3	3	13	9	12	11.3333	3	11	11	14	12
4	4	10	9	8	9	4	14	10	14	12.6667
5	5	11	10	12	11	5	10	11	15	12
6	6	13	10	11	11.3333	6	12	11	16	13
7	7	13	10	11	11.3333	7	14	12	15	13.6667
8	8	11	10	10	10.3333	8	13	16	16	15
9	9	11	11	12	11.3333	9	13	12	15	13.3333
10	10	12	14	13	13	10	10	12	16	12.6667
11	11	10	12	11	11	11	11	11	16	12.6667
12	12	9	9	12	10	12	12	10	15	12.3333
13	13	9	10	11	10	13	12	11	15	12.6667
14	14	12	11	12	11.6667	14	13	11	15	13
15	15	11	10	9	10	15	12	10	13	11.6667
16	16	12	10	9	10.3333	16	11	10	12	11
17	17	11	11	8	10	17	12	11	12	11.6667
18	18	10	13	11	11.3333	18	12	14	14	13.3333
19	19	11	13	8	10.6667	19	10	11	12	11
20	20	13	10	14	12.3333	20	12	15	16	14.3333
21	21	12	13	12	12.3333	21	13	16	14	14.3333
22	22	11	9	10	10	22	13	12	13	12.6667
23	23	11	9	10	10	23	12	14	13	13
24	24	13	11	11	11.6667	24	14	15	13	14

25	25	10	11	9	10	25	11	12	11	11.3333
26	26	12	10	11	11	26	14	12	14	13.3333
27	27	12	11	10	11	27	14	12	13	13
28	28	10	12	10	10.6667	28	14	12	10	12
29	29	10	10	10	10	29	11	12	13	12
30	30	10	10	11	10.3333	30	12	13	11	12
31	31	11	12	10	11	31	11	12	13	12
32	32	12	11	12	11.6667	32	10	14	14	12.6667
33	33	7	11	12	10	33	16	15	14	15
34	34	10	11	8	9.66667	34	13	14	15	14
35	35	11	9	10	10	35	11	12	10	11
36	36	13	12	12	12.3333	36	11	14	15	13.3333
37	37	11	10	10	10.3333	37	17	13	12	14
38	38	13	10	11	11.3333	38	14	13	15	14
39	39	10	11	12	11	39	15	14	11	13.3333
40	40	11	11	14	12	40	13	15	13	13.6667
41	41	12	11	13	12	41	13	14	13	13.3333
42	42	13	14	12	13	42	16	14	13	14.3333
43	43	11	10	10	10.3333	43	15	11	13	13
44	44	10	10	13	11	44	15	16	15	15.3333
45	45	13	13	15	13.6667	45	15	12	11	12.6667
46	46	12	11	10	11	46	14	12	15	13.6667
47	47	10	10	12	10.6667	47	11	12	15	12.6667

20%

		1	2	3			1	2	3	
1	1	10	11	13	11.3333	1	15	12	13	13.3333
2	2	10	12	13	11.6667	2	13	11	13	12.3333
3	3	13	9	11	11	3	15	16	13	14.6667
4	4	8	13	9	10	4	13	15	12	13.3333
5	5	9	11	7	9	5	14	11	12	12.3333
6	6	9	10	13	10.6667	6	14	16	13	14.3333
7	7	13	12	8	11	7	16	14	12	14
8	8	10	12	12	11.3333	8	14	15	12	13.6667
9	9	13	16	14	14.3333	9	16	16	15	15.6667
10	10	10	14	12	12	10	14	16	14	14.6667
11	11	15	15	10	13.3333	11	13	16	13	14
12	12	10	11	10	10.3333	12	13	16	13	14
13	13	10	10	10	10	13	14	12	13	13
14	14	10	12	9	10.3333	14	13	15	13	13.6667
15	15	7	10	7	8	15	10	11	12	11
16	16	10	13	11	11.3333	16	13	14	12	13
17	17	12	11	13	12	17	12	11	13	12
18	18	13	10	15	12.6667	18	14	15	15	14.6667
19	19	10	10	10	10	19	13	11	14	12.6667
20	20	14	10	12	12	20	15	14	15	14.6667
21	21	14	12	13	13	21	9	12	11	10.6667
22	22	10	10	12	10.6667	22	15	13	11	13
23	23	13	11	14	12.6667	23	15	15	16	15.3333
24	24	14	14	13	13.6667	24	13	12	11	12
25	25	11	13	10	11.3333	25	9	10	9	9.33333
26	26	11	13	11	11.6667	26	15	12	13	13.3333
27	27	10	13	10	11	27	14	11	13	12.6667
28	28	10	10	8	9.33333	28	11	12	14	12.3333
29	29	14	11	11	12	29	14	16	12	14
30	30	11	11	11	11	30	16	14	14	14.6667
31	31	11	13	10	11.3333	31	14	11	13	12.6667
32	32	13	10	10	11	32	14	15	13	14
33	33	11	10	8	9.66667	33	15	15	13	14.3333
34	34	11	9	10	10	34	11	12	10	11
35	35	11	10	8	9.66667	35	14	13	14	13.6667

36	36	15	13	14	14	36	14	15	15	14.6667
37	37	12	10	10	10.6667	37	10	9	10	9.66667
38	38	11	10	13	11.3333	38	11	12	11	11.3333
39	39	10	15	12	12.3333	39	14	11	16	13.6667
40	40	10	11	13	11.3333	40	17	14	15	15.3333
41	41	10	12	13	11.6667	41	15	14	15	14.6667
42	42	13	9	11	11	42	11	12	11	11.3333
43	43	8	10	9	9	43	13	14	13	13.3333
44	44	9	12	7	9.33333	44	14	11	12	12.3333
45	45	9	10	13	10.6667	45	15	11	13	13
46	46	13	15	8	12	46	11	10	12	11
47	47	10	11	12	11	47	12	11	13	12

' -

25% ()

.	.	1	2	3		.	1	2	3	
1	1	12	10	17	13	1	17	14	16	15.66667
2	2	11	15	14	13.3333	2	15	14	16	15
3	3	8	10	7	8.33333	3	12	15	11	12.66667
4	4	10	16	7	11	4	15	13	17	15
5	5	10	14	12	12	5	14	12	15	13.66667
6	6	16	12	16	14.6667	6	17	15	17	16.33333
7	7	13	13	10	12	7	15	13	15	14.33333
8	8	12	15	16	14.3333	8	17	16	18	17
9	9	16	12	13	13.6667	9	10	11	11	10.66667
10	10	17	12	15	14.6667	10	18	17	18	17.66667
11	11	12	15	14	13.6667	11	17	14	15	15.33333
12	12	10	13	11	11.3333	12	18	16	20	18
13	13	12	13	10	11.6667	13	10	11	9	10
14	14	12	15	10	12.3333	14	12	10	13	11.66667
15	15	14	12	8	11.3333	15	17	19	18	18
16	16	14	15	15	14.6667	16	16	16	15	15.66667
17	17	10	15	16	13.6667	17	18	15	16	16.33333
18	18	16	13	17	15.3333	18	12	14	12	12.66667
19	19	11	12	10	11	19	16	14	14	14.66667
20	20	12	17	11	13.3333	20	17	13	15	15
21	21	10	17	12	13	21	17	17	16	16.66667
22	22	11	11	15	12.3333	22	16	14	12	14

23	23	18	17	14	16.3333	23	14	13	14	13.66667
24	24	18	15	16	16.3333	24	18	17	16	17
25	25	13	16	14	14.3333	25	17	18	17	17.33333
26	26	12	16	15	14.3333	26	15	17	13	15
27	27	12	14	13	13	27	10	12	10	10.66667
28	28	13	10	11	11.3333	28	16	15	19	16.66667
29	29	16	14	11	13.6667	29	17	13	15	15
30	30	14	13	12	13	30	17	17	19	17.66667
31	31	11	13	12	12	31	15	12	14	13.66667
32	32	13	16	12	13.6667	32	11	11	10	10.66667
33	33	13	10	11	11.3333	33	17	15	18	16.66667
34	34	12	10	11	11	34	15	14	15	14.66667
35	35	15	9	14	12.6667	35	15	14	16	15
36	36	18	16	13	15.6667	36	13	12	11	12
37	37	10	12	13	11.6667	37	16	15	14	15
38	38	12	15	17	14.6667	38	15	15	17	15.66667
39	39	15	14	15	14.6667	39	17	14	17	16
40	40	8	10	7	8.33333	40	16	17	18	17
41	41	10	12	7	9.66667	41	14	15	16	15
42	42	10	14	12	12	42	19	15	15	16.33333
43	43	16	11	13	13.3333	43	13	14	12	13
44	44	13	13	10	12	44	10	10	11	10.33333
45	45	12	13	12	12.3333	45	15	13	17	15
46	46	15	12	13	13.3333	46	17	18	20	18.33333
47	47	14	13	15	14	47	17	13	15	15

5% ()

.	.	1	2	3		.	1	2	3	
1	1	2	2.5	2	2.1667	1	3.5	3	3	3.1667
2	2	2	2	3	2.3333	2	2	3.5	3	2.8333
3	3	2.5	2	2	2.1667	3	3.5	3	3	3.1667
4	4	2	2.5	3	2.5	4	3	3	2.5	2.8333
5	5	2	3	2.5	2.5	5	2	2.5	3	2.5
6	6	2	3	2	2.3333	6	2.5	3	3	2.8333
7	7	2	3.5	2	2.5	7	3	3	3.5	3.1667
8	8	2.5	2	3	2.5	8	4.5	3	3	3.5
9	9	3	4	3	3.3333	9	3	3.5	4	3.5
10	10	3	2	2.5	2.5	10	3	2	3.5	2.8333
11	11	3.5	2	3	2.8333	11	3	3.5	4	3.5
12	12	4	2.5	4	3.5	12	3.5	3	4	3.5
13	13	2	2	2	2	13	4	3.5	4	3.8333
14	14	2	2	3	2.3333	14	2	2	3.5	2.5
15	15	2	2	2.5	2.1667	15	3	4	3	3.3333
16	16	2.5	2	3	2.5	16	3.5	2	3	2.8333
17	17	2	2	2	2	17	3	2.5	4	3.1667
18	18	2	3.5	2	2.5	18	2	3	2.5	2.5
19	19	2	3	2	2.3333	19	3.5	3	4	3.5
20	20	2	3	2.5	2.5	20	2	2.5	2	2.1667
21	21	2	2.5	2	2.1667	21	4.5	3	4	3.8333
22	22	2	2	2	2	22	2	2	2.5	2.1667
23	23	3.5	3	2.5	3	23	4	2.5	4	3.5
24	24	3	3	3.5	3.1667	24	3	3	3	3
25	25	3	2.5	3	2.8333	25	4	4	3.5	3.8333
26	26	2	2	2.5	2.1667	26	2.5	2	3	2.5
27	27	2.5	2.5	3	2.6667	27	4	3.5	4	3.8333
28	28	3	3	2	2.6667	28	3	3	3	3
29	29	3	2.5	3	2.8333	29	3	2	4	3
30	30	3	2	2	2.3333	30	3	3.5	2.5	3
31	31	3.5	3	3.5	3.3333	31	3.5	3	4	3.5
32	32	2	2	3	2.3333	32	3	2	3	2.6667
33	33	3	2	2	2.3333	33	3	4	4	3.6667
34	34	2	2.5	2	2.1667	34	2	2.5	2.5	2.3333
35	35	2.5	2	3.5	2.6667	35	2.5	2	3	2.5
36	36	2	2	3	2.3333	36	3	2	3.5	2.8333

37	37	2	3	2.5	2.5	37	3.5	4	3	3.5
38	38	3	2.5	3	2.8333	38	3	3	4	3.3333
39	39	2.5	3	4	3.1667	39	3	2.5	4	3.1667
40	40	2	2	2	2	40	2	2	2	2
41	41	2	3	2	2.3333	41	3	4	3.5	3.5
42	42	2	2.5	2.5	2.3333	42	3.5	3	3	3.1667
43	43	2.5	3	3	2.8333	43	2.5	3	3.5	3
44	44	3	2	2	2.3333	44	3	3.5	2	2.8333
45	45	2	2.5	3	2.5	45	3	3	4	3.3333
46	46	2	2	3	2.3333	46	2.5	2	2.5	2.3333
47	47	2.5	3	3	2.8333	47	3	3.5	4	3.5

' -

100% ()

.	.	1	2	3		.	1	2	3	
1	1	50	49.5	56	51.8333	1	67.5	62	63	64.1667
2	2	50	55	61	55.3333	2	57	56.5	60	57.8333
3	3	56.5	45	49	50.1667	3	58.5	65	59	60.8333
4	4	47	54.5	40	47.1667	4	61	57	59.5	59.1667
5	5	49	51	48.5	49.5	5	59	60.5	66	61.8333
6	6	56	52	56	54.6667	6	64.5	62	67	64.5
7	7	54	53.5	43	50.1667	7	63	56	58.5	59.1667
8	8	52.5	56	60	56.1667	8	64.5	65	66	65.1667
9	9	61	65	59	61.6667	9	61	62.5	67	63.5
10	10	62	60	59.5	60.5	10	61	63	68.5	64.1667
11	11	60.5	60	53	57.8333	11	62	64.5	67	64.5
12	12	48	50.5	52	50.1667	12	66.5	69	71	68.8333
13	13	47	50	45	47.3333	13	57	51.5	58	55.5
14	14	50	55	48	51	14	57	57	62.5	58.8333
15	15	49	49	38.5	45.5	15	64	63	67	64.6667
16	16	53.5	57	51	53.8333	16	57.5	57	55	56.5
17	17	48	56	53	52.3333	17	61	57.5	61	59.8333
18	18	54	55.5	58	55.8333	18	59	67	61.5	62.5
19	19	50	54	45	49.6667	19	57.5	56	60	57.8333
20	20	57	57	57.5	57.1667	20	60	58.5	63	60.5
21	21	53	61.5	58	57.5	21	62.5	69	64	65.1667
22	22	47	47	54	49.3333	22	63	57	55.5	58.5
23	23	60.5	56	54.5	57	23	64	63.5	64	63.8333
24	24	65	62	60.5	62.5	24	69	68	66	67.6667

25	25	53	59.5	51	54.5	25	61	63	58.5	60.8333
26	26	54	58	55.5	55.8333	26	66.5	64	62	64.1667
27	27	53.5	57.5	52	54.3333	27	61	53.5	59	57.8333
28	28	51	52	46	49.6667	28	60	56	62	59.3333
29	29	56	53.5	50	53.1667	29	64	64	61	63
30	30	56	53	51	53.3333	30	68	68.5	68.5	68.3333
31	31	54.5	58	51.5	54.6667	31	57.5	53	64	58.1667
32	32	56	58	52	55.3333	32	59	61	62	60.6667
33	33	48	49	50	49	33	69	68	68	68.3333
34	34	50	44.5	47	47.1667	34	60	60.5	62.5	61
35	35	56.5	44	51.5	50.6667	35	60.5	59	60	59.8333
36	36	66	62	58	62	36	61	63	65.5	63.1667
37	37	51	54	50.5	51.8333	37	69.5	63	63	65.1667
38	38	57	54.5	60	57.1667	38	57	59	62	59.3333
39	39	58.5	62	61	60.5	39	68	58.5	70	65.5
40	40	48	51	51	50	40	67	70	67	68
41	41	50	55	53	52.6667	41	65	68	70.5	67.8333
42	42	55	56.5	53.5	55	42	63.5	58	59	60.1667
43	43	52.5	49	52	51.1667	43	62.5	58	59.5	60
44	44	50	53	49	50.6667	44	60	57.5	62	59.8333
45	45	52	55.5	59	55.5	45	67	61	66	64.6667
46	46	56	57	52	55	46	63.5	59	68.5	63.6667
47	47	53.5	53	58	54.8333	47	64	61.5	68	64.5

' -

()

.	.	()																																						
1	1	2	4	4	4	3	4	3	4	4	3	4	4	3	3	4	4	2	2	3	2	4	4	1	4	1	4	3	2	4	4	4	2	4	4	3	3	3	3.24324	
2	2	5	5	1	4	5	4	2	2	4	5	2	3	1	4	1	4	1	4	2	2	1	2	5	4	2	5	2	5	5	4	3	1	5	5	1	1	4	3.13514	
3	3	4	4	1	1	1	3	3	2	2	4	4	4	4	2	4	4	1	4	4	4	3	4	3	3	5	2	2	4	3	4	4	1	1	4	4	1	4	3.02703	
4	4	2	2	1	2	2	3	2	1	2	1	2	2	2	2	3	2	3	2	2	3	1	1	2	1	1	2	5	3	1	2	1	3	3	2	1	2	5	2.08108	
5	5	2	4	2	4	3	4	4	4	3	4	3	4	4	3	4	4	2	4	4	2	4	4	3	3	3	2	3	4	5	2	4	2	4	4	2	3	4	3.35135	
6	6	2	5	4	3	4	4	4	5	4	3	3	4	1	3	5	4	5	3	1	4	1	4	5	3	2	4	4	5	5	4	4	4	3	5	4	4	3	3.64865	
7	7	4	5	3	3	1	2	4	3	5	5	5	5	3	2	2	1	4	2	2	5	5	4	5	4	4	5	2	2	5	4	5	4	1	3	5	5	4	3.59459	
8	8	5	3	4	5	4	5	4	3	1	4	4	5	3	4	4	4	5	5	2	3	5	4	4	1	1	1	2	5	1	3	3	2	2	1	3	4	4	3.32432	
9	9	3	2	2	3	2	2	1	1	2	3	3	3	2	3	4	2	2	2	4	2	4	3	2	2	2	4	4	1	4	2	2	4	3	3	2	3	3	2.59459	
10	10	4	4	3	4	2	4	3	3	4	4	4	2	3	4	4	4	2	4	2	4	2	4	4	1	4	4	4	1	4	4	1	4	3	2	4	3	4	3.27027	
11	11	3	4	4	3	2	4	3	4	4	2	4	2	2	2	4	2	4	3	4	3	3	4	3	4	4	2	4	4	2	2	3	2	4	2	3	2	2	3.05405	
12	12	4	4	3	3	3	4	3	2	2	5	4	5	3	4	3	3	5	3	4	4	4	1	4	5	5	5	5	3	5	4	5	5	4	4	3	4	1	3.72973	
13	13	4	5	4	3	5	4	5	4	3	5	4	5	4	2	1	4	4	3	1	5	5	2	4	5	5	4	5	4	2	5	4	2	2	2	3	1	4	3.62162	
14	14	5	2	3	1	3	2	1	2	3	5	2	2	3	3	1	2	5	5	2	5	5	4	4	5	4	5	4	1	4	5	5	5	4	4	3	3	4	3.40541	
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16	16	4	2	1	3	2	3	2	3	3	5	3	2	4	3	3	2	2	4	2	5	4	3	4	3	2	4	5	2	4	5	5	5	5	4	5	5	4	3.43243	
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2	2	17	15	16	16	2	15	14	17	15.33333
3	3	19	21	15	18.3333	3	16	14	17	15.66667
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6	6	16	18	15	16.3333	6	19	17	18	18
7	7	19	12	16	15.6667	7	12	15	15	14
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9	9	17	18	15	16.6667	9	19	19	16	18
10	10	16	21	17	18	10	15	17	16	16
11	11	13	15	13	13.6667	11	18	14	14	15.33333
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14	14	17	13	19	16.3333	14	12	13	13	12.66667
15	15	18	15	14	15.6667	15	16	18	17	17
16	16	15	13	14	14	16	15	15	18	16
17	17	18	17	14	16.3333	17	18	16	15	16.33333
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19	19	14	15	14	14.3333	19	17	15	14	15.33333
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25	25	17	13	14	14.6667	25	14	17	16	15.66667
26	26	19	17	15	17	26	18	18	15	17
27	27	15	12	16	14.3333	27	15	15	15	15
28	28	13	19	14	15.3333	28	16	15	14	15
29	29	19	14	17	16.6667	29	16	15	18	16.33333
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42	42	21	16	20	19	42	21	20	20	20.3333
43	43	17	20	19	18.6667	43	16	17	15	16
44	44	21	13	14	16	44	14	15	15	14.6667
45	45	15	12	18	15	45	15	16	15	15.3333
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47	47	15	16	12	14.3333	47	19	18	17	18

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20% ()

.	.	1	2	3		.	1	2	3	
1	1	13	16	14	14.3333	1	12	12	13	12.3333
2	2	8	10	8	8.6667	2	8	10	9	9
3	3	10	8	10	9.3333	3	12	10	11	11
4	4	16	13	14	14.3333	4	8	12	9	9.6667
5	5	11	9	11	10.3333	5	11	11	14	12
6	6	9	12	9	10	6	15	13	14	14
7	7	12	14	16	14	7	11	11	11	11
8	8	8	8	9	8.3333	8	12	9	10	10.3333
9	9	13	12	11	12	9	9	8	9	8.6667
10	10	10	9	8	9	10	12	12	12	12
11	11	16	14	17	15.6667	11	11	9	8	9.3333
12	12	12	8	11	10.3333	12	10	12	11	11
13	13	15	10	13	12.6667	13	10	12	14	12
14	14	8	12	9	9.6667	14	10	11	11	10.6667
15	15	11	8	12	10.3333	15	15	12	12	13
16	16	14	16	8	12.6667	16	11	8	9	9.3333
17	17	9	9	10	9.3333	17	12	12	10	11.3333
18	18	11	10	13	11.3333	18	14	12	13	13
19	19	13	15	16	14.6667	19	12	12	8	10.6667
20	20	10	8	8	8.6667	20	12	11	13	12
21	21	16	14	15	15	21	10	9	10	9.6667
22	22	12	9	12	11	22	10	9	8	9
23	23	11	13	10	11.3333	23	12	10	11	11
24	24	8	8	9	8.3333	24	11	10	9	10

25	25	10	11	8	9.66667	25	13	12	13	12.6667
26	26	13	15	11	13	26	14	13	16	14.3333
27	27	15	14	12	13.6667	27	11	9	10	10
28	28	8	9	8	8.33333	28	11	11	11	11
29	29	13	16	13	14	29	11	10	11	10.6667
30	30	8	12	9	9.66667	30	10	10	9	9.66667
31	31	10	13	12	11.6667	31	10	8	9	9
32	32	8	11	9	9.33333	32	9	11	11	10.3333
33	33	12	8	13	11	33	11	15	12	12.6667
34	34	8	10	8	8.66667	34	13	12	15	13.3333
35	35	11	13	13	12.3333	35	13	12	11	12
36	36	9	12	10	10.3333	36	11	11	10	10.6667
37	37	13	8	14	11.6667	37	10	9	8	9
38	38	11	9	10	10	38	16	14	14	14.6667
39	39	16	15	10	13.6667	39	13	12	12	12.3333
40	40	12	12	11	11.6667	40	12	12	12	12
41	41	8	8	12	9.33333	41	14	16	12	14
42	42	10	11	16	12.3333	42	8	9	8	8.33333
43	43	8	9	8	8.33333	43	10	11	11	10.6667
44	44	11	10	10	10.3333	44	10	11	9	10
45	45	14	14	9	12.3333	45	11	11	14	12
46	46	9	12	9	10	46	14	14	16	14.6667
47	47	13	8	8	9.66667	47	10	13	11	11.3333

20%

.	.	1	2	3		.	1	2	3	
1	1	14	16	13	14.3333	1	12	10	12	11.3333
2	2	11	12	10	11	2	13	14	12	13
3	3	9	8	8	8.33333	3	11	10	9	10
4	4	13	12	13	12.6667	4	13	16	14	14.3333
5	5	12	8	8	9.33333	5	10	12	9	10.3333
6	6	14	12	16	14	6	14	13	12	13
7	7	11	12	10	11	7	11	13	10	11.3333
8	8	13	12	15	13.3333	8	9	8	9	8.66667
9	9	14	15	16	15	9	12	14	11	12.3333
10	10	10	11	10	10.3333	10	10	12	9	10.3333
11	11	12	13	13	12.6667	11	14	14	11	13
12	12	10	9	9	9.33333	12	12	2	11	8.33333
13	13	15	14	14	14.3333	13	12	12	11	11.6667
14	14	10	9	11	10	14	12	13	11	12
15	15	8	8	8	8	15	13	15	14	14
16	16	10	14	12	12	16	9	11	11	10.3333
17	17	9	10	8	9	17	9	12	12	11
18	18	15	14	13	14	18	12	15	12	13
19	19	12	13	12	12.3333	19	9	9	10	9.33333
20	20	9	9	8	8.66667	20	12	11	12	11.6667
21	21	11	12	10	11	21	11	14	12	12.3333
22	22	9	8	10	9	22	11	9	10	10
23	23	12	13	15	13.3333	23	16	13	14	14.3333
24	24	8	10	10	9.33333	24	11	10	12	11
25	25	11	13	10	11.3333	25	12	12	12	12
26	26	14	15	16	15	26	12	12	15	13
27	27	8	8	9	8.33333	27	11	12	11	11.3333
28	28	13	11	14	12.6667	28	9	9	9	9
29	29	15	14	14	14.3333	29	10	12	11	11
30	30	10	11	10	10.3333	30	8	9	9	8.66667
31	31	9	8	8	8.33333	31	10	11	11	10.6667
32	32	14	17	15	15.3333	32	15	12	14	13.6667
33	33	8	8	8	8	33	8	8	10	8.66667
34	34	12	11	10	11	34	12	10	11	11
35	35	12	17	14	14.3333	35	10	11	9	10

36	36	13	14	9	12	36	13	14	16	14.3333
37	37	8	10	10	9.33333	37	8	11	10	9.66667
38	38	12	15	13	13.3333	38	12	13	12	12.3333
39	39	9	8	8	8.33333	39	10	13	13	12
40	40	12	11	11	11.3333	40	14	12	15	13.6667
41	41	13	15	12	13.3333	41	10	11	13	11.3333
42	42	14	16	15	15	42	8	8	9	8.33333
43	43	10	11	11	10.6667	43	9	12	10	10.3333
44	44	8	9	8	8.33333	44	9	11	7	9
45	45	15	13	14	14	45	15	13	13	13.6667
46	46	11	12	12	11.6667	46	11	11	8	10
47	47	12	14	12	12.6667	47	12	13	12	12.3333

' -

25% ()

.	.	1	2	3		.	1	2	3	
1	1	16	18	17	17	1	16	13	14	14.3333
2	2	12	15	13	13.3333	2	9	10	9	9.33333
3	3	15	14	16	15	3	10	11	9	10
4	4	10	13	10	11	4	12	14	10	12
5	5	15	13	14	14	5	11	10	11	10.6667
6	6	11	15	10	12	6	12	13	12	12.3333
7	7	10	11	10	10.3333	7	14	15	13	14
8	8	15	15	16	15.3333	8	14	13	12	13
9	9	12	15	12	13	9	10	11	11	10.6667
10	10	10	10	11	10.3333	10	13	11	12	12
11	11	11	14	11	12	11	11	10	10	10.3333
12	12	11	16	15	14	12	13	14	14	13.6667
13	13	18	19	20	19	13	11	13	10	11.3333
14	14	16	15	14	15	14	15	13	13	13.6667
15	15	13	16	10	13	15	12	11	10	11
16	16	12	11	10	11	16	15	16	13	14.6667
17	17	10	9	9	9.33333	17	11	14	13	12.6667
18	18	17	13	14	14.6667	18	14	15	13	14
19	19	12	10	13	11.6667	19	12	11	11	11.3333
20	20	17	13	15	15	20	17	15	13	15
21	21	13	15	13	13.6667	21	11	15	13	13
22	22	12	10	13	11.6667	22	12	10	10	10.6667
23	23	16	16	15	15.6667	23	15	15	13	14.3333

24	24	13	14	12	13	24	16	17	15	16
25	25	11	9	10	10	25	14	17	13	14.6667
26	26	10	11	10	10.3333	26	13	15	13	13.6667
27	27	14	12	10	12	27	11	10	10	10.3333
28	28	16	12	14	14	28	12	11	12	11.6667
29	29	10	10	12	10.6667	29	17	17	15	16.3333
30	30	11	15	13	13	30	13	16	14	14.3333
31	31	17	15	15	15.6667	31	13	11	12	12
32	32	16	18	17	17	32	15	14	16	15
33	33	15	14	13	14	33	11	12	13	12
34	34	10	12	10	10.6667	34	17	15	18	16.6667
35	35	16	11	13	13.3333	35	19	17	19	18.3333
36	36	15	15	16	15.3333	36	15	14	13	14
37	37	9	13	8	10	37	17	18	14	16.3333
38	38	14	13	15	14	38	11	13	13	12.3333
39	39	13	16	12	13.6667	39	13	13	13	13
40	40	15	17	15	15.6667	40	14	19	18	17
41	41	11	11	12	11.3333	41	9	9	8	8.6667
42	42	15	13	13	13.6667	42	11	13	12	12
43	43	11	12	10	11	43	14	14	15	14.3333
44	44	15	15	16	15.3333	44	12	15	11	12.6667
45	45	12	13	14	13	45	14	11	14	13
46	46	9	11	8	9.33333	46	13	17	15	15
47	47	12	13	13	12.6667	47	12	11	12	11.6667

5% ()

.	.	1	2	3		.	1	2	3	
1	1	2.5	3.5	3	3	1	2.5	2	3.5	2.6667
2	2	3	2	2.5	2.5	2	2	2	2	2
3	3	2	2.5	2	2.1667	3	2.5	2	2.5	2.3333
4	4	2	2	3	2.3333	4	3	2	2	2.3333
5	5	2.5	3	2.5	2.6667	5	2	3	2	2.3333
6	6	2	2	3	2.3333	6	2	2	3	2.3333
7	7	2.5	2.5	3	2.6667	7	2.5	2	2.5	2.3333
8	8	2	2	2	2	8	3	2	2	2.3333
9	9	3	2	2.5	2.5	9	2.5	3.5	2	2.6667
10	10	2	3	3	2.6667	10	3	3	2	2.6667
11	11	2.5	3	3	2.8333	11	2	2	2	2
12	12	2	2.5	3	2.5	12	3.5	3	3	3.1667
13	13	3	2	3.5	2.8333	13	2	2	2.5	2.1667
14	14	2.5	3	3	2.8333	14	2	2	2	2
15	15	2	2	2.5	2.1667	15	2.5	2	2	2.1667
16	16	2.5	3	3	2.8333	16	2	2.5	2	2.1667
17	17	2	2.5	3	2.5	17	2.5	2	3	2.5
18	18	2.5	2	2	2.1667	18	2	3	2.5	2.5
19	19	2	3	2.5	2.5	19	2	2	3	2.3333
20	20	2	2.5	3	2.5	20	2.5	2	2.5	2.3333
21	21	2.5	3	2	2.5	21	2	2.5	2	2.1667
22	22	3	2	2	2.3333	22	2	2	2	2
23	23	2	3	2.5	2.5	23	2.5	3	2	2.5
24	24	3	2.5	2	2.5	24	3	3.5	2.5	3
25	25	2.5	3	2	2.5	25	2.5	2	2.5	2.3333
26	26	4	3	4	3.6667	26	2	2	2	2
27	27	2	2.5	3	2.5	27	2.5	2	2	2.1667
28	28	3.5	3	2.5	3	28	2.5	2	2	2.1667
29	29	3	3	2	2.6667	29	2	2.5	2	2.1667
30	30	2	2	2	2	30	2.5	2	2.5	2.3333
31	31	2.5	3	2.5	2.6667	31	2.5	3	2	2.5
32	32	3	2.5	3	2.8333	32	2	2	2.5	2.1667
33	33	2	2	3	2.3333	33	2.5	2	2	2.1667
34	34	2	3	2	2.3333	34	2	3	3.5	2.8333
35	35	2.5	3	2.5	2.6667	35	2	2	2	2
36	36	2	2	2	2	36	3	2.5	2	2.5

37	37	3	2.5	3	2.8333	37	2	2	3	2.3333
38	38	3	3	2	2.6667	38	2.5	2	2	2.1667
39	39	2	2	2	2	39	2	2	2	2
40	40	2.5	3	2.5	2.6667	40	2	2	2.5	2.167
41	41	3	2.5	4	3.1667	41	2.5	3	3	2.833
42	42	2	2	3	2.3333	42	2	2.5	2.5	2.333
43	43	3	3	2.5	2.8333	43	2	2	2	2
44	44	2	2.5	2	2.1667	44	2.5	2	3.5	2.6667
45	45	2.5	2	3	2.5	45	2	2.5	2	2.1667
46	46	2	2	2	2	46	2	2	2	2
47	47	2	2	2.5	2.1667	47	3	3	3.5	3.1667

' _

100% ()

.	.	1	2	3		.	1	2	3	
1	1	65.5	72.5	68	68.6667	1	58.5	55	57.5	57
2	2	51	54	49.5	51.5	2	47	50	49	48.6667
3	3	55	53.5	51	53.1667	3	51.5	47	48.5	49
4	4	56	57	58	57	4	51	62	49	54
5	5	52.5	45	52.5	50	5	49	49	50	49.3333
6	6	52	59	53	54.6667	6	62	58	59	59.6667
7	7	54.5	51.5	55	53.6667	7	50.5	56	51.5	52.6667
8	8	52	50	60	54	8	54	52	51	52.3333
9	9	59	62	56.5	59.1667	9	52.5	55.5	49	52.3333
10	10	48	54	49	50.3333	10	53	55	51	53
11	11	54.5	59	57	56.8333	11	56	49	45	50
12	12	52	47.5	52	50.5	12	56.5	51	56	54.5
13	13	72	63	72.5	69.1667	13	48	54	54.5	52.1667
14	14	53.5	52	56	53.8333	14	51	52	50	51
15	15	52	49	46.5	49.1667	15	58.5	58	55	57.1667
16	16	53.5	57	47	52.5	16	52	52.5	53	52.5
17	17	48	47.5	44	46.5	17	52.5	56	53	53.8333
18	18	65.5	56	57	59.5	18	53	60	54.5	55.8333
19	19	53	56	57.5	55.5	19	52	49	46	49
20	20	54	44.5	47	48.5	20	59.5	54	54.5	56
21	21	59.5	63	53	58.5	21	50	56.5	51	52.5
22	22	50	47	52	49.6667	22	49	44	46	46.3333
23	23	59	65	57.5	60.5	23	59.5	56	55	56.8333
24	24	45	46.5	47	46.1667	24	59	60.5	55.5	58.3333

25	25	51.5	49	44	48.1667	25	55.5	60	56.5	57.3333
26	26	60	61	56	59	26	59	60	61	60
27	27	54	48.5	50	50.8333	27	50.5	48	48	48.8333
28	28	53.5	54	52.5	53.3333	28	50.5	48	48	48.8333
29	29	60	57	58	58.3333	29	56	56.5	57	56.5
30	30	45	52	49	48.6667	30	49.5	54	52.5	52
31	31	53.5	56	56.5	55.3333	31	51.5	51	48	50.1667
32	32	61	66.5	67	64.8333	32	56	55	57.5	56.1667
33	33	55	44	52	50.3333	33	49.5	53	53	51.8333
34	34	47	51	42	46.6667	34	58	58	62.5	59.5
35	35	58.5	63	55.5	59	35	59	54	56	56.3333
36	36	54	55	51	53.3333	36	57	58.5	56	57.1667
37	37	51	47.5	52	50.1667	37	53	57	52	54
38	38	59	60	55	58	38	61.5	61	60	60.8333
39	39	54	60	49	54.3333	39	57	57	56	56.6667
40	40	58.5	56	53.5	56	40	57	60	61.5	59.5
41	41	53	59.5	55	55.8333	41	50.5	58	53	53.8333
42	42	62	58	67	62.3333	42	50	52.5	51.5	51.3333
43	43	49	55	50.5	51.5	43	51	56	53	53.3333
44	44	57	49.5	50	52.1667	44	47.5	54	45.5	49
45	45	58.5	54	58	56.8333	45	57	53.5	58	56.1667
46	46	48	55	46	49.6667	46	54	60	57	57
47	47	54	53	47.5	51.5	47	56	58	55.5	56.5

' -
()

.	.	()																																					
1	1	5	4	5	4	4	4	3	2	2	3	4	5	2	1	2	3	3	4	2	3	2	2	3	2	4	3	2	4	2	3	2	2	4	5	5	5	1	3.1351
2	2	3	3	3	4	5	2	4	2	2	4	3	3	4	1	5	2	4	3	5	2	5	4	3	1	2	1	5	4	3	2	1	1	2	3	2	5	1	2.9459
3	3	3	4	3	2	4	5	1	2	2	1	2	2	2	2	2	3	2	2	3	2	2	3	1	2	2	2	4	1	3	1	2	4	2	3	1	3	2	2.3514
4	4	4	3	4	5	4	3	1	2	3	4	4	4	5	5	5	4	5	4	5	4	4	5	5	4	5	4	5	3	5	4	4	4	4	4	1	5	4	4
5	5	5	4	3	1	3	1	4	1	3	5	3	3	4	5	5	4	1	3	5	3	5	3	5	4	3	5	4	1	3	5	4	5	4	5	1	5	4	3.5676
6	6	5	2	4	5	5	4	1	3	5	3	4	5	1	1	4	5	1	5	4	1	5	4	1	5	4	1	5	4	1	5	1	4	5	1	2	5	1	3.2973
7	7	4	3	2	4	5	5	5	5	4	2	4	5	5	4	5	4	3	4	4	5	3	3	3	3	5	4	2	4	3	4	3	4	5	5	2	2	3	3.7838
8	8	2	3	2	4	2	3	4	3	1	3	2	2	2	4	3	4	4	2	3	2	3	2	4	2	4	2	4	3	2	2	4	3	3	2	2	1	3	2.7297
9	9	5	3	1	5	3	4	4	3	3	3	4	4	5	1	1	1	4	1	1	4	4	3	1	3	1	1	4	3	4	3	4	3	4	4	3	4	3	3.027
10	10	4	4	2	3	1	4	4	2	2	4	3	5	5	1	1	1	4	1	1	4	4	3	3	4	4	5	4	4	4	5	5	3	3	2	3	4	3	3.2162
11	11	4	4	4	5	3	4	5	3	3	4	5	4	3	3	2	5	3	3	3	5	5	4	3	5	3	3	2	3	4	5	3	3	3	3	4	3	3	3.6216
12	12	4	4	2	1	3	1	4	1	4	2	3	1	3	4	3	2	2	3	2	3	2	1	3	3	2	3	3	2	2	2	3	3	2	2	2	1	2	2.4324
13	13	4	5	3	4	5	5	5	5	2	5	5	5	5	4	3	5	5	5	5	4	5	5	5	4	3	3	4	5	5	4	5	1	3	1	1	1	1	4.027
14	14	3	2	1	3	3	4	3	2	1	3	4	1	2	2	1	3	3	2	3	3	2	2	2	3	4	3	4	2	3	4	3	3	2	2	2	3	4	2.6216
15	15	5	5	1	1	1	5	5	5	1	5	5	5	5	5	5	5	5	1	4	5	5	3	1	1	5	1	1	1	1	1	5	1	1	5	5	5	5	3.4054
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2 19000-1700-1700 60701+

பிழைக்கிறேன் - அது சரி

2 ከላይ በሚገኙት ስያሜዎች ውስጥ ለገጽ አንቀጽ 25 ስር ያስገቡትን ስራዎች ያስቀመጡ

የገንዘብ ምንጭ ለምሳሌ የገንዘብ ምንጭ

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At home PRBFI 07-98

1. The first part of the document is a list of names and addresses, including "Mr. J. H. Smith, 123 Main St., New York, N.Y." and "Mr. J. H. Smith, 123 Main St., New York, N.Y."

Sammy Mc ...

Sum me si b R d h m o r e f z h m t i
n n y p l o c T h f

Jah'n nne' wate' nze' w' he' f' e' h'

$\therefore \text{NH}_4\text{Cl} + \text{H}_2\text{O} \rightleftharpoons \text{NH}_4^+ + \text{OH}^-$

Summary

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Principles and max. Hthd

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Page number - MC47

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Zeit und Ort festlegen

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(Project Based Learning)

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(Assumptions) ()

Tests of Normality

	section	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
precontent	experiment	.103	47	.200*	.974	47	.370
	control	.106	47	.200*	.955	47	.069
preorganizations	experiment	.114	47	.159	.952	47	.051
	control	.158	47	.005	.939	47	.017
prevocabulary	experiment	.109	47	.200*	.983	47	.706
	control	.127	47	.056	.935	47	.011
prelanguageuse	experiment	.081	47	.200*	.970	47	.254
	control	.084	47	.200*	.973	47	.337
premechanics	experiment	.204	47	.000	.916	47	.002
	control	.129	47	.048	.938	47	.015
pretotal	experiment	.083	47	.200*	.973	47	.332
	control	.088	47	.200*	.944	47	.025

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Tests of Normality							
	section	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
postcontent	experiment	.089	47	.200*	.963	47	.148
	control	.116	47	.135	.969	47	.237
postorganizations	experiment	.102	47	.200*	.977	47	.476
	control	.106	47	.200*	.965	47	.177
postvocabulary	experiment	.093	47	.200*	.962	47	.135
	control	.087	47	.200*	.964	47	.152
postlanguageuse	experiment	.164	47	.003	.940	47	.017
	control	.078	47	.200*	.988	47	.910
postmechanics	experiment	.134	47	.033	.955	47	.070
	control	.216	47	.000	.878	47	.000
posttotal	experiment	.116	47	.139	.961	47	.121
	control	.122	47	.079	.967	47	.198

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
premotivation	.067	94	.200*	.980	94	.150
postmotivation	.129	94	.001	.953	94	.002

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

0.05

Pre test ()

**Box's Test of Equality
of Covariance Matrices^a**

Box's M	77.209
F	4.847
df1	15
df2	34078.737
Sig.	.000

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + section

Post test ()

**Box's Test of Equality
of Covariance Matrices^a**

Box's M	36.813
F	2.311
df1	15
df2	34078.737
Sig.	.003

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + section

Pre motivation and pre total ()

**Box's Test of Equality of
Covariance Matrices^a**

Box's M	5.221
F	1.699
df1	3
df2	1523520.000
Sig.	.165

Tests the null hypothesis
that the observed
covariance matrices of
the dependent variables
are equal across groups.

a. Design: Intercept +
section

Post motivation and post total ()

**Box's Test of Equality of
Covariance Matrices^a**

Box's M	13.636
F	4.438
df1	3
df2	1523520.000
Sig.	.004

Tests the null hypothesis
that the observed
covariance matrices of
the dependent variables
are equal across groups.

a. Design: Intercept +
section

(Equality of Covariance Box's M Test)

0.001

Pre test

(multivariate normality Mahalanobis)

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	42.78	54.39	47.50	2.520	94
Std. Predicted Value	-1.875	2.734	.000	1.000	94
Standard Error of Predicted Value	3.436	12.141	6.794	1.910	94
Adjusted Predicted Value	39.56	55.31	47.07	3.237	94
Residual	-47.009	45.912	.000	27.163	94
Std. Residual	-1.683	1.644	.000	.973	94
Stud. Residual	-1.762	1.710	.007	1.006	94
Deleted Residual	-52.034	49.667	.426	29.078	94
Stud. Deleted Residual	-1.784	1.729	.007	1.011	94
Mahal. Distance	.419	16.591	4.947	3.347	94
Cook's Distance	.000	.061	.012	.014	94
Centered Leverage Value	.005	.178	.053	.036	94

a. Dependent Variable: id

(Critical Value) 20.52

16.591

Post test

(multivariate normality

Mahalanobis)

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.39	83.62	47.50	19.381	94
Std. Predicted Value	-2.070	1.863	.000	1.000	94
Standard Error of Predicted Value	2.501	7.624	4.866	1.095	94
Adjusted Predicted Value	5.55	84.65	47.47	19.382	94
Residual	-45.250	54.589	.000	19.198	94
Std. Residual	-2.293	2.766	.000	.973	94
Stud. Residual	-2.373	2.822	.001	1.002	94

Deleted Residual	-48.491	56.838	.029	20.371	94
Stud. Deleted Residual	-2.439	2.943	.002	1.013	94
Mahal. Distance	.504	12.889	4.947	2.656	94
Cook's Distance	.000	.080	.010	.015	94
Centered Leverage Value	.005	.139	.053	.029	94

a. Dependent Variable: id

Pre total and pre motivation
normalityMahalanobis)

(multivariate

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	40.92	55.55	47.50	2.288	94
Std. Predicted Value	-2.876	3.519	.000	1.000	94
Standard Error of Predicted Value	2.869	10.539	4.667	1.533	94
Adjusted Predicted Value	41.76	54.78	47.52	2.354	94
Residual	-45.646	48.448	.000	27.183	94
Std. Residual	-1.661	1.763	.000	.989	94
Stud. Residual	-1.672	1.789	.000	1.004	94
Deleted Residual	-46.239	49.907	-.016	28.029	94
Stud. Deleted Residual	-1.689	1.812	.000	1.009	94
Mahal. Distance	.024	12.689	1.979	2.258	94
Cook's Distance	.000	.101	.010	.014	94
Centered Leverage Value	.000	.136	.021	.024	94

a. Dependent Variable: id

Post total and Post motivation
normalityMahalanobis)

(multivariate

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	17.89	88.47	47.50	18.249	94
Std. Predicted Value	-1.622	2.245	.000	1.000	94
Standard Error of Predicted Value	2.153	6.378	3.548	.910	94
Adjusted Predicted Value	16.84	90.48	47.61	18.396	94
Residual	-40.829	49.650	.000	20.276	94
Std. Residual	-1.992	2.422	.000	.989	94
Stud. Residual	-2.003	2.442	-.003	1.004	94

Deleted Residual	-41.480	50.450	-.107	20.894	94
Stud. Deleted Residual	-2.037	2.512	-.002	1.013	94
Mahal. Distance	.037	8.014	1.979	1.577	94
Cook's Distance	.000	.089	.010	.014	94
Centered Leverage Value	.000	.086	.021	.017	94

a. Dependent Variable: id

! (multivariate normality Mahalanobis)

Numbers of Dependent Variables	Critical Value	
2	13.82	
3	16.27	
4	18.47	
5	20.52	

(Variance Inflation Factor ,VIF)

5

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	8.215	1.706		4.815	.000		
1 preorganizations	.060	.098	.058	.612	.542	.922	1.085
prevocabulary	.285	.089	.325	3.188	.002	.811	1.233
prelanguageuse	.121	.078	.146	1.538	.128	.931	1.074
premechanics	.946	.449	.202	2.104	.038	.913	1.095

a. Dependent Variable: precontent

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.956	2.150	-.445	.658		
	preorganizations	.242	.108	2.248	.027	.970	1.031
	prelanguageuse	.138	.088	1.572	.120	.932	1.073
	premechanics	.811	.510	1.589	.116	.894	1.118
	precontent	.360	.113	3.188	.002	.834	1.199

a. Dependent Variable: prevocabulary

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	8.412	1.860		4.523	.000		
1 prelanguageuse	-.073	.085	-.092	-.862	.391	.914	1.094
premechanics	-.017	.496	-.004	-.034	.973	.870	1.150
precontent	.070	.114	.072	.612	.542	.752	1.330
prevocabulary	.222	.099	.260	2.248	.027	.769	1.300

a. Dependent Variable: preorganizations

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	8.197	2.405		3.408	.001		
1 premechanics	.147	.615	.026	.240	.811	.870	1.149
precontent	.215	.140	.177	1.538	.128	.768	1.301
prevocabulary	.195	.124	.183	1.572	.120	.748	1.337
preorganizations	-.113	.131	-.090	-.862	.391	.926	1.080

a. Dependent Variable: prelanguageuse

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.285	.419		3.065	.003		
1 precontent	.050	.024	.235	2.104	.038	.786	1.273
prevocabulary	.034	.021	.182	1.589	.116	.749	1.336
preorganizations	-.001	.023	-.004	-.034	.973	.918	1.089
prelanguageuse	.004	.018	.025	.240	.811	.907	1.102

a. Dependent Variable: premechanics

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	8.603	2.367		3.634	.000		
1 postorganization	.261	.161	.185	1.616	.110	.781	1.280
s postvocabulary	-.030	.138	-.024	-.216	.829	.860	1.162
postmechanics	.787	.502	.183	1.568	.120	.747	1.340
postcontent	.026	.116	.026	.225	.822	.783	1.278

a. Dependent Variable: postlanguageuse

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	9.581	2.080		4.607	.000		
1 postorganization	.183	.148	.132	1.239	.219	.772	1.296
s postvocabulary	.056	.126	.045	.444	.658	.862	1.160
postlanguageuse	.022	.097	.022	.225	.822	.907	1.103
postmechanics	1.608	.432	.381	3.725	.000	.840	1.191

a. Dependent Variable: postcontent

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.672	1.817		3.671	.000		
1 postorganizations	.354	.120	.318	2.952	.004	.833	1.200
postmechanics	.306	.390	.090	.785	.434	.731	1.367
postcontent	.040	.089	.049	.444	.658	.784	1.276
postlanguageuse	-.018	.081	-.022	-.216	.829	.907	1.103

a. Dependent Variable: postvocabulary

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.212	.528		-.401	.689		
1 postorganizations	.060	.034	.182	1.789	.077	.786	1.272
postcontent	.084	.023	.354	3.725	.000	.904	1.106
postlanguageuse	.034	.022	.147	1.568	.120	.931	1.074
postvocabulary	.022	.029	.076	.785	.434	.866	1.155

a. Dependent Variable: postmechanics

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	4.355	1.577		2.762	.007		
1 postcontent	.092	.075	.128	1.239	.219	.796	1.257
postvocabulary	.252	.085	.281	2.952	.004	.944	1.059
postmechanics	.579	.324	.190	1.789	.077	.753	1.329
postlanguageuse	.109	.068	.155	1.616	.110	.933	1.072

a. Dependent Variable: postorganizations

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	47.951	4.265		11.242	.000		
premotivation	1.841	1.296	.147	1.421	.159	1.000	1.000

a. Dependent Variable: pretotal

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.641	.445		5.938	.000		

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	40.622	2.058		19.742	.000		
postmotivation	4.791	.551	.672	8.697	.000	1.000	1.000

a. Dependent Variable: posttotal

pretotal	.012	.008	.147	1.421	.159	1.000	1.000
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a. Dependent Variable: premotivation

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-1.819	.632		-2.876	.005		
posttotal	.094	.011	.672	8.697	.000	1.000	1.000

a. Dependent Variable: postmotivation