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Confidence and Academic Success in Higher Education

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Abstract

A dropout rate can be used to determine student's ability to fulfill their perspective program of study, as well as the college's ability to qualify the right students for the completion of their academic degree. College advertisement can also play a significant role when it comes to dropout rates as it can be viewed as ineffective if the learners are not able to carry out what they initially signed up for. Although dropout rates can be found from most colleges, the reasons for student's failure to complete their course of study can be hard to determine.

The current study attempts to report how adult learner's confidence in academics and financial stability can affect their success in completing a program of study. A survey was administered to a convenient sample of first year undergraduate students in order to determine the student's level of confidence in their internal and external capital.

Analysis revealed that when it comes to adult learners there was significance between the confidence of learner's prior academic knowledge as well as the learners future financial resources needed to complete their program of study.

Theoretical Framework

McClusky's theory of margin is grounded on the notion that adulthood is a time of growth, change, and integration where an individual is in constant search for balance between energy needed to accomplish certain tasks and the load required to achieve those tasks. "This balance is conceptualized as a ratio between the load (L) of life, which dissipates energy, and the power (P) of life, which allows one to deal with the load. Margin in life is the ratio of load to power. More power means a greater margin to participate in learning." (Merriam, Caffarella, Baumgartner, 2007, p.93)

Past studies were done using McClusky's theory of margin in order to determine the validity of the theory when it comes to adult learners. None of the research studied showed a correlation between linking Power and Load as significant contributors in order to influence adult learner's behavior (Demko, 1982; Schawo, 1997; Weiman, 1987) Pg 95 T&L. The theory of margin did prove effective when it came to non learning environments. Baum (1980) used the power and load principle when investigating over a hundred widows. Load was used to determine self identified problems in widowhood, while power was categorized as outside resources and service available to widows. The study showed that when load would go up due to negative attitudes towards widowhood for example, Power would also go up due to finding more resources. Baum's study proved significant and in support of McClusky's theory of margin.
Stevenson (1980) used a group of older adults, nursing home residents, and middle aged adults in order to compare the Power and Load measurement between three categories. The findings showed that the older adults, those in nursing homes, perceived themselves as having more power than the middle aged adults. Stevenson's results also proved significant however just like Baum, the studies were not done using adult learning,

The purpose of the study

The purpose for this research is to measure the level of confidence using power and load on first year college students. The study will determine student's internal power such as academic intellect and student's external load such as financial resources. The research extends from previous adult learning studies in determining the level of confidence against the level of resources needed to suppress the Load which is viewed as an impediment.

Hypothesis of study

Younger adults are expected to lack exterior resources therefore increasing the Load needed to fulfilling their academic plan of study, leading to a decrease in student's external confidence. The rational behind the hypothesis is that adults are expected to have more Power therefore leading to more resources and an easier time to deal with the Load.

Method

A convenient sample of first year undergraduate learners was used to complete a survey. The study was done in the department of social studies however some of the classes had students pursuing degrees in different areas of study. There were 75 participants between the ages of 18 and 24. All participants volunteered to take the paper survey which included 10 items.

Using two constructs (four items per construct) L1 and L2; the instrument utilizes eight questions to determine academic success. Four questions are used to determine the validity of internal academic capital. Prior knowledge of chemistry, science, and scientific instruments is

used for this construct. Economic status, financial resources, and monetary assistance are used to determine external capital. Both external and internal capital is used to determine Power or Load. Participants' confidence in their resources is used to determine the success or impediment in completing their program of study.

Scaling

The survey was coded and entered into SPSS (version 16). Strongly agree was coded as 6, agree was coded as 5, somewhat agree as 4, somewhat disagree as 3, disagree as 2, and strongly disagree as1. Calculations were done to check the degree which the survey takers approached the items in the constructs. Questions 3, 4, 5 and 6 which determined the student's internal capital achieved a Cronbach's alpha of .779. After calculating the correlation on items 7, 8, 9 and 10 which used to determine student's need for financial support or lack of confidence in student's external capital, the Cronbach's alpha was measured at .789.

An independent T test was administered on gender for both internal and external capital but failed to bring evidence about any difference in perception between male and female students. The results can be seen in the tables at the end of this paper.

Results

Components were used to examine Power and Load at the cut off age of 24. Cronbach's Alfa determined significance. Questions Q3, Q4, Q5 and Q6 had a Cronbach Alfa of .779. Questions Q7, Q8, Q9, and Q10 had a Cronbach Alfa of .789.

Discussion

The results of this study showed significance between Power and Load in the success of young adult learners towards academic accomplishments. The results have fallen in favor of McClusky's Theory of Margin. Although students showed confidence in their internal academic capital they also expressed lack of confidence in their external financial confidence which in turn can obstruct their ability to complete their studies. The results show a need for financial planning which can be achieved by providing financial advisement. Perhaps introducing a college course on student financial planning could assist those students in need of such advice. This study could also be of assistance to colleges trying to improve their student retention rate. Furthermore if the study would have used older adults which have access to more Power (external capital) the results could have fallen in favor of Wolfin's (1999) findings. This study however shows that there is a correlation between Power, Load, and the academic confidence of young adult learners.

Ancillary Materials

References

Baum, J. (1980). Testing the theory of margin using a population of widows. *Proceedings of the 21st Annual Adult Education Research Conference*, Retrieved November 15, 2008, from http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED197205&ERICExtSearch_SearchType_0=no&accno=ED197205

Demko, D.J. (1982). Human resources correlates of older adult participation in self-selected community college settings. *Dissertation Abstract International, 43.*

Merriam , S., Caffarella, R. & Baumgartner, L. (2007). *Learning in adulthood: a comprehensive guide*.San Francisco, CA: A Wiley Imprint.

Schawo, A. (1997).The relationship between the margin in life and perception of the ideal adult classroom of adult female college students. *Dissertation Abstract International*. *57(09).*

Stevenson, J.J. (1980).Load, power and margin in older adults. *Geriatric Nursing*. *1(2)*, 50-55.

Weiman, E.R. (1987).McClusky's power-load-margin theory and adult students. *Dissertation Abstract International*. *50(11)*.

Wolfin, R. (1999).Understanding overloaded adults' readiness level for learning: McClusky's theory of margin refuted. *Proceedings of the 18th Annual Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education*.

Communalities

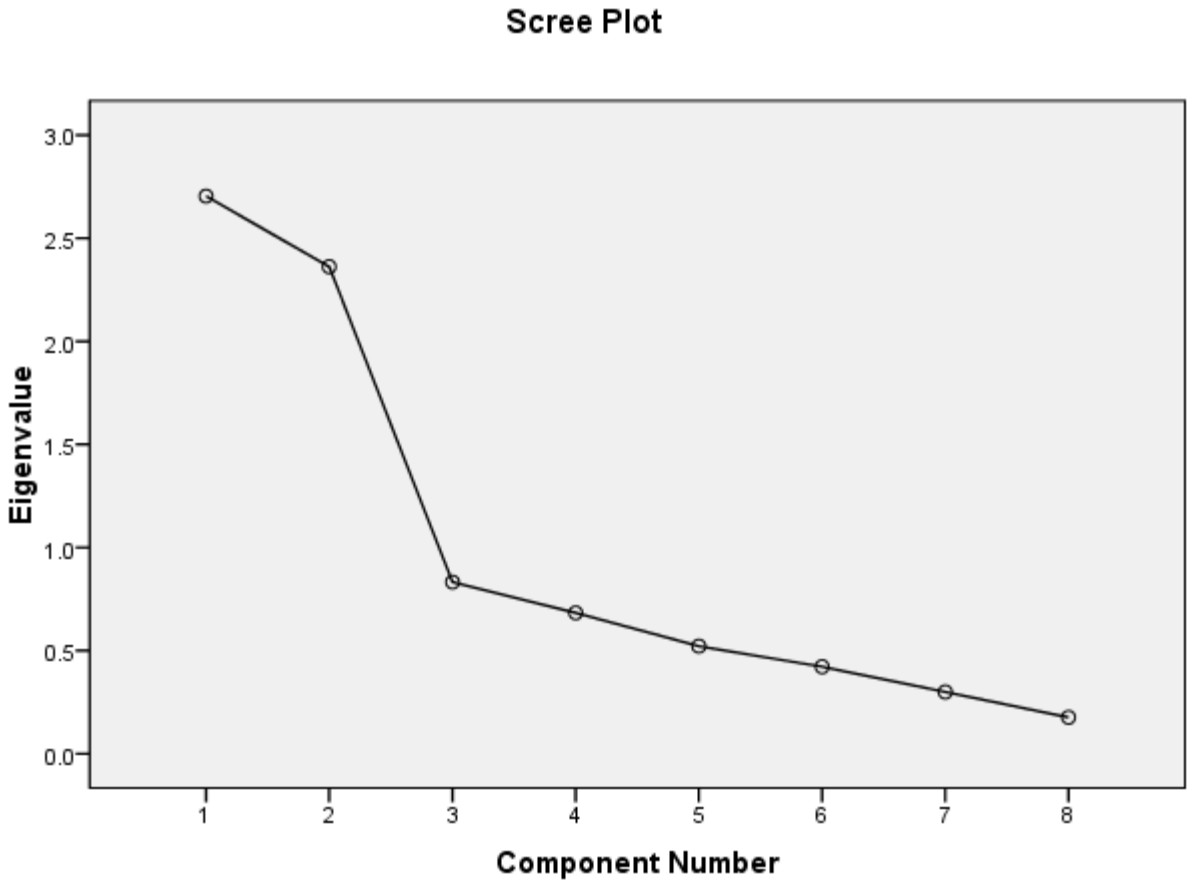
	Initial	Extraction
3. I have a good understanding of science I previously studied	1.000	.663
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	1.000	.463
5. I have a good understanding of physical science	1.000	.636
6. I can understand scientific instruments and their relationship to corresponding formulas	1.000	.728
7. I am experiencing financial problems that are distracting and troublesome	1.000	.793
8.My weak financial situation together with the stress of earning money can obstruct my studies	1.000	.720
9. Getting a loan to assist me through school is essential to my academic success	1.000	.434
10. I do not have the financial resources I will need to finish college	1.000	.628

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Ro
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.704	33.801	33.801	2.704	33.801	33.801	2.5
2	2.362	29.520	63.321	2.362	29.520	63.321	2.4
3	.833	10.406	73.728				
4	.683	8.540	82.268				
5	.521	6.517	88.785				
6	.422	5.271	94.056				
7	.299	3.741	97.797				
8	.176	2.203	100.000				

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component	
	1	2
3. I have a good understanding of science I previously studied	.550	.600
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	.533	.423
5. I have a good understanding of physical science	.479	.638
6. I can understand scientific instruments and their relationship to corresponding formulas	.407	.750
7. I am experiencing financial problems that are distracting and troublesome	.746	-.486
8.My weak financial situation together with the stress of earning money can obstruct my studies	.649	-.547
9. Getting a loan to assist me through school is essential to my academic success	.620	-.223
10. I do not have the financial resources I will need to finish college	.600	-.518

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
3. I have a good understanding of science I previously studied	.080	.810
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	.173	.658
5. I have a good understanding of physical science	.001	.798
6. I can understand scientific instruments and their relationship to corresponding formulas	-.124	.844
7. I am experiencing financial problems that are distracting and troublesome	.889	.059
8.My weak financial situation together with the stress of earning money can obstruct my studies	.847	-.048
9. Getting a loan to assist me through school is essential to my academic success	.630	.194
10. I do not have the financial resources I will need to finish college	.790	-.055

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.800	.600
2	-.600	.800

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Reliability Statistics for Level 1 Construct Q3, Q4, Q5, and Q6

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.779	.787	4

Item Statistics

	Mean	Std. Deviation	N
3. I have a good understanding of science I previously studied	4.3377	1.09557	77
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	3.5974	1.33041	77
5. I have a good understanding of physical science	4.3766	1.05180	77

Item Statistics

	Mean	Std. Deviation	N
3. I have a good understanding of science I previously studied	4.3377	1.09557	77
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	3.5974	1.33041	77
5. I have a good understanding of physical science	4.3766	1.05180	77
6. I can understand scientific instruments and their relationship to corresponding formulas	4.0260	1.12360	77

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.084	3.597	4.377	.779	1.217	.130	4
Item Variances	1.335	1.106	1.770	.664	1.600	.088	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
3. I have a good understanding of science I previously studied	12.0000	7.711	.644	.422	.695
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	12.7403	7.563	.478	.282	.792
5. I have a good understanding of physical science	11.9610	8.275	.570	.435	.733
6. I can understand scientific instruments and their relationship to corresponding formulas	12.3117	7.454	.671	.476	.680

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.3377	12.832	3.58216	4

T test (gender) Internal Capital

Group Statistics

	1. Sex of the respondent	N	Mean	Std. Deviation	Std. Error Mean
3. I have a good understanding of science I previously studied	Male	38	4.1579	1.21980	.19788
	Female	39	4.5128	.94233	.15089
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	Male	38	3.2895	1.37365	.22284
	Female	39	3.8974	1.23106	.19713
5. I have a good understanding of physical science	Male	38	4.4211	1.13021	.18334
	Female	39	4.3333	.98230	.15729
6. I can understand scientific instruments and their relationship to corresponding formulas	Male	38	4.1579	1.15141	.18678
	Female	39	3.8974	1.09532	.17539

ndependent Samples Test

		Levene's Test for Equality of Variances			
		F	Sig.	t	df
3. I have a good understanding of science I previously studied	Equal variances assumed	2.250	.138	-1.431	75
	Equal variances not assumed			-1.426	69.620
4. I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms, and molecules	Equal variances assumed	3.188	.078	-2.046	75
	Equal variances not assumed			-2.043	73.651
5. I have a good understanding of physical science	Equal variances assumed	.425	.517	.364	75
	Equal variances not assumed			.363	73.003
6. I can understand scientific instruments and their relationship to corresponding formulas	Equal variances assumed	.232	.632	1.017	75
	Equal variances not assumed			1.017	74.567

$t(75) = -1.431, p>.05$

$t(75) = -2.046, p>.05$

$t(75) = .364, p>.05$

$t(75) = 1.017, p>.05$

Reliability Statistics for Level 2 Construct Q7, Q8, Q9, and Q10

Case Processing Summary

		N	%
Cases	Valid	77	100.0
	Excluded[a]	0	.0
	Total	77	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.789	.803	4

Item Statistics

	Mean	Std. Deviation	N
7. I am experiencing financial problems that are distracting and troublesome	3.0779	1.54550	77
8.My weak financial situation together with the stress of earning money can obstruct my studies	3.3247	1.53419	77
9. Getting a loan to assist me through school is essential to my academic success	3.8442	1.77753	77
10. I do not have the financial resources I will need to finish college	2.0000	1.14708	77

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.062	2.000	3.844	1.844	1.922	.603	4
Item Variances	2.304	1.316	3.160	1.844	2.401	.573	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
7. I am experiencing financial problems that are distracting and troublesome	9.1688	11.932	.774	.683	.641
8.My weak financial situation together with the stress of earning money can obstruct my studies	8.9221	13.099	.642	.642	.714
9. Getting a loan to assist me through school is essential to my academic success	8.4026	13.559	.448	.299	.830
10. I do not have the financial resources I will need to finish college	10.2468	15.794	.600	.368	.750

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
12.2468	22.583	4.75216	4

T test (gender) External Capital

Group Statistics

	1. Sex of the respondent	N	Mean	Std. Deviation	Std. Error Mean
7. I am experiencing financial problems that are distracting and troublesome	Male	38	3.3421	1.58159	.25657
	Female	39	2.8205	1.48451	.23771
8.My weak financial situation together with the stress of earning money can obstruct my studies	Male	38	3.6053	1.53411	.24887
	Female	39	3.0513	1.50348	.24075
9. Getting a loan to assist me through school is essential to my academic success	Male	38	3.7895	1.90530	.30908
	Female	39	3.8974	1.66694	.26692
10. I do not have the financial resources I will need to finish college	Male	38	2.0789	1.12422	.18237
	Female	39	1.9231	1.17842	.18870

Independent Samples Test

		Levene's Test for Equality of Variances			
		F	Sig.	t	df
7. I am experiencing financial problems that are distracting and troublesome	Equal variances assumed	.498	.482	1.493	75
	Equal variances not assumed			1.491	74.404
8.My weak financial situation together with the stress of earning money can obstruct my studies	Equal variances assumed	.139	.710	1.600	75
	Equal variances not assumed			1.600	74.838
9. Getting a loan to assist me through school is essential to my academic success	Equal variances assumed	2.392	.126	-.265	75
	Equal variances not assumed			-.264	73.152
10. I do not have the financial resources I will need to finish college	Equal variances assumed	.060	.807	.594	75
	Equal variances not assumed			.594	74.968

$t(75) = 1.493, p>.05$

$t(75) = 1.600, p>.05$

$t(75) = -265, p>.05$

$t(75) = .594, p>.05$

No evidence of difference between genders on External Capital.

SURVEY

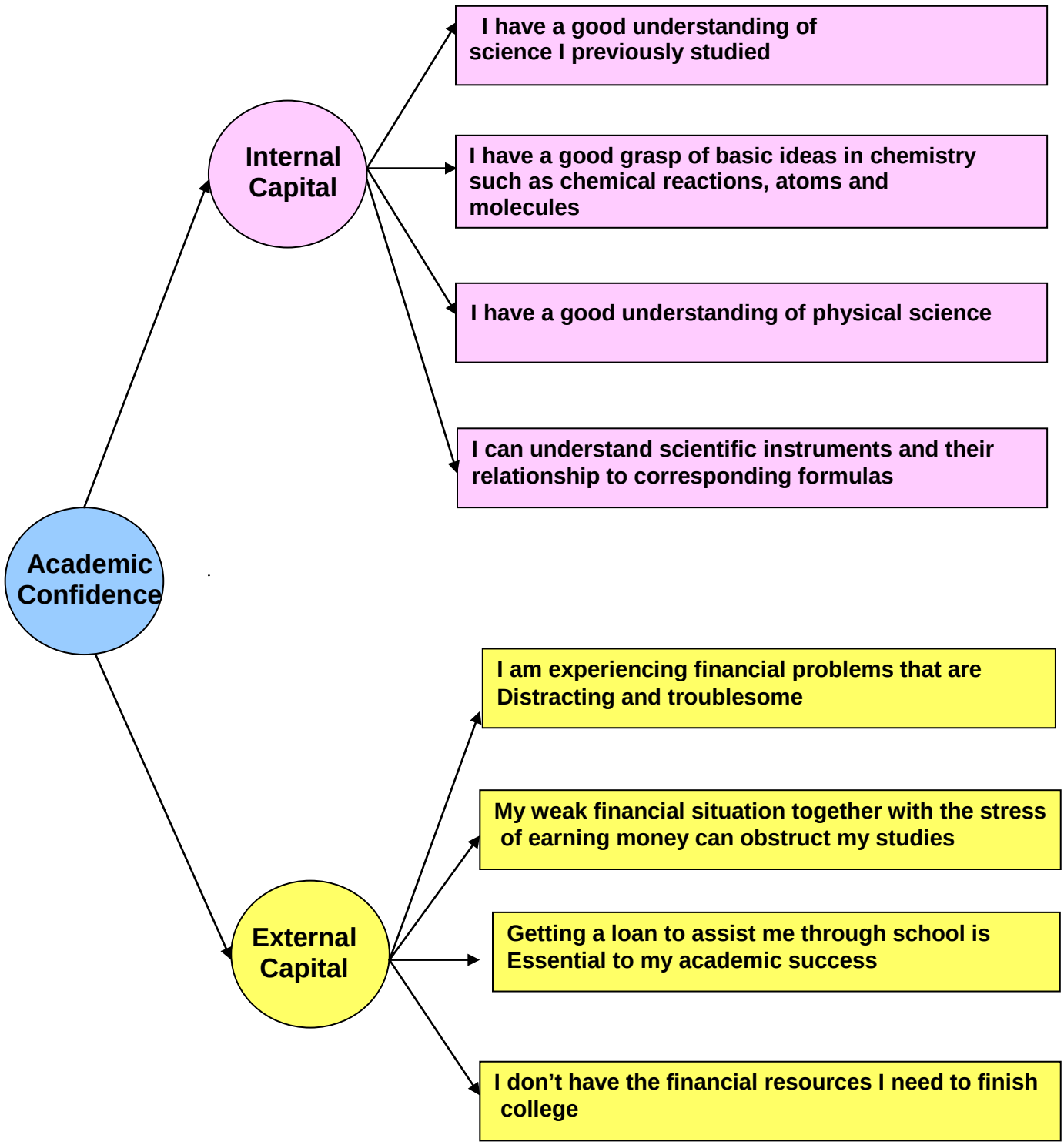
This study intends to explain the correlation between academic confidence and financial confidence

Academic achievement

Age _____ **M___ F____**	**Department of study** **_____**

	I feel confident that I will achieve academic success based on my current situation	**Strongly disagree**	**Disagree**	**Some what Disagree**	**Some what Agree**	**Agree**	**Strongly Agree**
1.	**I have a good understanding of science I previously studied.**	**1**	**2**	**3**	**4**	**5**	**6**
2.	**I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms and molecules**	**1**	**2**	**3**	**4**	**5**	**6**
3.	**I have a good understanding of physical sciences**	**1**	**2**	**3**	**4**	**5**	**6**
4.	**I can understand scientific instruments and their relationship to corresponding formulas**	**1**	**2**	**3**	**4**	**5**	**6**
5.	**I am experiencing financial problems that are distracting and troublesome**	**1**	**2**	**3**	**4**	**5**	**6**
6.	**My weak financial situation together with the stress of earning money can obstruct my studies.**	**1**	**2**	**3**	**4**	**5**	**6**
7.	**Getting a loan to assist me through school is essential to my academic success.**	**1**	**2**	**3**	**4**	**5**	**6**
8.	**I don't have the financial resources I will need to finish college**	**1**	**2**	**3**	**4**	**5**	**6**

Instrument


Academic Confidence
Internal Capital
I have a good understanding of science I previously studied
I have a good grasp of basic ideas in chemistry such as chemical reactions, atoms and molecules
I have a good understanding of physical science
I can understand scientific instruments and their relationship to corresponding formulas
External Capital
I am experiencing financial problems that are Distracting and troublesome
My weak financial situation together with the stress of earning money can obstruct my studies
Getting a loan to assist me through school is Essential to my academic success
I don't have the financial resources I need to finish college