

# Assessing the impact of motivation on student retention: the case of University of West London

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## Keywords

Intrinsic Motivation, Extrinsic Motivation, Student Retention, Higher education, UWL.

## Abstract

*The aim of this research is to shed light on ways in which to improve student retention by examining student motivation. The research begins from a literature review focusing on the two different types of motivation, intrinsic and extrinsic, and their effect on student retention. Findings are presented from a 5 point Likert scale paper based survey and a convenience sample of 120 respondents from the Claude Littner Business School at the University of West London. Descriptive statistics, a correlation analysis, a regression analysis and a Chi-square test were all used to analyse the data. The analysis confirmed that there is a relationship between motivation and student retention, with extrinsic motivation having a larger impact. Future research should consider a comparison of all the Academic Schools at the University of West London or a comparison between the University of West London and other institutions.*

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## 1. Introduction

In February 2008, the Times Higher Education magazine reported “student retention is an ever greater concern for institutions” (Swain, 2008). Following this report, the higher education sector has continuously grown in concern and engaged in different ways to resolve the issue following further publications. However, prior to 2008, the University of West London has faced the consistent challenge of retaining students for many years. Historical Performance Indicator figures produced by the Higher Education Statistics Agency (HESA) as of the past 13 years show that the University of West London (formerly known as Thames Valley University) has on average had a 5.9% higher retention rate than the rest of the sector, with the highest difference of 9.5% being in 2009/10.

Although student retention is pertinent to higher education, for many years it has taken a back seat to student recruitment which has been the key focus of many, if not all institutions in the UK. With the introduction of the Student Number Control (SNC) by the Higher Education Funding Council England (HEFCE) in late 1993 where it was originally known as the maximum allowable student number (MASN), institutions were obliged to focus on student recruitment and meeting targets.

Universities have been subject to limits on student recruitment since 2002 through HEFCE, with total recruitment permitted with a (+/-) 5% ‘tolerance band’. The cap faced further changes over the years, including the rule set for students with higher A-Level grades to not be included in the SNC allowing institutions to recruit as many as possible, and was ultimately abolished in the 2015/16 recruitment cycle.

The University of West London has seen a decline in student retention. In year figures for the University of West London show that 12% of undergraduate full-time first degree entrants drop out in their first year of study (University of West London, 2016) and 17.3% out of 1960 undergraduate full-time first degree entrants in the academic year 13/14 do not return to the second year of study in 14/15 (HESA, 2016). This shows that student retention has become a growing concern for the University of West London. Further to this, statistics provided by the Strategic Planning department at the university based on HESA non-continuation rates for the academic year 14/15 show that the Claude Littner Business School have the second highest non-continuation rate of 24.8% in the institution.

Of the 8 Academic Schools across the University, the College of Nursing, Midwifery and Healthcare is currently the only School to have a comprehensive retention strategy in place, which has now been implemented for several years. This is due to the strict and regular monitoring requirements by Health Education England. However, there were circa 2300 new and 3170 returning ‘Home/EU’ funded undergraduate full-time students in September 2015 (September cohorts - Academic Year 2015/16) (Internal UWL documents, 2015). With the non-continuation rate of 17.3% as stated above and each student equating to an average of £27,000 for a 3 year standard undergraduate programme, it is critical to retain each student and support them to return each year and complete. Therefore, not only has this added pressure to the University’s financial income, but across all other departments there is a growing concern and pressure to find a solution in

order to improve student retention. Additionally, student retention also affects the student experience as well as posing a threat to the university's reputation.

Therefore, this has raised questions as to what initially motivates students to attend classes and what could be done further in order to motivate and encourage students; not only to attend classes on a regular basis but also to submit all elements of work and to continue with their studies year on year resulting in a successful completion of their degree.

## 2. Literature Review

There are several characteristics which a student can be determined by when discussing student continuation and retention. In the research paper: 'An interim report: Do bursaries have an effect on retention rates?' (2014), the Office for Fair Access (OFFA) investigated the extent to which institutional bursaries contributed towards continuation rates. The key findings from this research showed that continuation rates varied amongst different groups of students. Students in the highest income group (a household residual income of more than £50,020) were 3.8% more likely to continue their studies than the lowest income group (less than £25,000) in 2010/11. Of those who entered higher education in 2010/11, 4.4% less students from the most disadvantaged backgrounds continued with their studies compared to those likely to participate in higher education from the least disadvantaged backgrounds. The household residual income and the POLAR quintile (Participation of Local Areas classification), a measure of the percentage of the population with participation in higher education, are just two of many factors that can determine the success of a students' likelihood of continuation.

### 2.1 Motivation

Motivation as defined by the Cambridge English dictionary is the "enthusiasm for doing something". A person who is moved to do something and is energised and activated towards a goal is considered to be motivated, whereas someone who lacks inspiration and is not energised is considered to be unmotivated (Ryan & Deci, 2000). Furthermore, Ryan and Deci (2000) further researched into motivation and suggest that motivation is hardly a unitary phenomenon and that people not only vary in the level of motivation but also in the orientation of that motivation. As an example, a student can be highly motivated to study a certain course out of curiosity and interest or, alternatively, because he or she wants the approval of a parent or guardian. A student could be motivated to study at a particular university once again to procure the approval of a parent or guardian, or, alternatively, simply because his or her friends are also studying there. The nature and focus is evidenced in the first example, whereas the amount of motivation is evidenced in the second example as both options are forms of external motivation.

### 2.2 Intrinsic motivation

Intrinsic motivation is defined as doing something for personal and internal reasons rather than doing an activity for a separate goal or consequence. A person can be intrinsically motivated for many reasons such as for fun, curiosity, to gain skills and knowledge, etc. This form of motivation is natural to humans as it is something that is adopted from birth or early childhood and is a critical element in cognitive, social and physical development (Ryan & Deci, 2000). From a young age, we explore and do activities simply for the joy of it or to learn rather than for a reward or goal. In 'Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions', Ryan and Deci (2000) cited the research made by White (1959) that this form of motivation was originally discovered in a study in animal behaviour where many organisms took part in activities that displayed exploratory, playful and curiosity-driven behaviours.

### 2.3 Extrinsic motivation

Extrinsic motivation is the alternative to intrinsic motivation and is defined as being moved to do an activity or complete a task for some goal or reward. As opposed to the intrinsic being classified as a 'natural' motivation for humans, Ryan & Deci argue that extrinsic motivation is brought on by social demands as we grow older, that require people to take on tasks that they don't necessarily enjoy or activities for a particular incentive (Ryan & Deci, 2000). After being poorly characterised by deCharms (1968), Deci & Ryan further distinguish extrinsic motivation in the 'Self-Determination Theory', 1985 (Ryan & Deci, 2000). Ryan & Deci propose in the SDT that extrinsic motivation "can vary in the degree to which it is autonomous." (Ryan & Deci, 2000). In using a previous example, a student choosing a particular university to please his or her parents is intrinsically motivated and is choosing the university to seek parental approval. A student choosing a particular university because he or she believes this will aid their career choice, is also extrinsically motivated

however this form of extrinsic motivation entails personal endorsement and a feeling of choice. Although pursuing higher education can be argued as being intrinsically motivated, the basis still remains that tasks are extrinsically motivating. Ryan & Deci raise the concern of “how to motivate students to value and self-regulate such activities, and without external pressure, to carry them out on their own.” SDT categorises this problem in the form of internalization and integration of values and behaviours and the sub-theory of OIT shows that extrinsic motivation can be broken down into 4 categories: External regulation, Introjection, Identification and Integration.

<b>INTRINSIC MOTIVATION</b>	<b>EXTRINSIC MOTIVATION</b>
Doing activity for inherent satisfactions	Doing activity for some separable consequences/outcomes
Natural motivation - critical element in cognitive, social and physical development - from birth/early childhood	Brought on by social demands that require people to take on tasks they don't necessarily enjoy
Activities done simply for the joy of it	Activities done for some kind of reward/incentive/greater goal
First discovered in animal behaviour study (White, 1959)	Distinguished in SDT (Deci & Ryan, 1985) after poorly characterized by deCharms, 1968
Varies in relation between individuals and activities	Varies in degree of autonomous (SDT)
Assumed to be the better form - people are more likely to sustain activities for longer (Deci, 1975)	Extrinsic rewards have a stronger impact - people shift from intrinsic to extrinsic faster (The Motivation Handbook, 2001)
Only 1 variation - Organismic Integration Theory (OIT) (Deci & Ryan, 1985)	Can be broken down into 4 categories: External regulation, Introjection, Identification and Integration (OIT) (Deci & Ryan, 1985)

**Table 1 - Summary table of comparison between intrinsic and extrinsic motivation**

#### 2.4 Student retention

Student retention refers to the definition of a ‘non-continuation’ which is a student that is present and completes one year of study but does not return to the institution the following year whether they submit assessments or not. The Higher Education Statutory Agency (HESA) measure non-continuation over a period of 2 years and solely compare which students were present in one year and not in the following year. The statistics are then ranked against an appropriate benchmark and released on an annual basis (HESA, 2016). Student progression and, in particular retention is a continuous focal point in higher education (HE). As described earlier, it can be argued that the main reason for the increase in attention towards student retention is due to the removal of the SNC in England which has increased recruitment competition and left “struggling” or lower reputation universities to focus on retaining students in order to maintain key aspects such as financial budgets. However, there are other factors to consider as to why student retention is important.

#### 2.5 Relationship between Intrinsic Motivation and Student Retention

Goal structure is a theory also frequently discussed when looking into intrinsic motivation amongst students. Skaalvik & Skaalvik (2013) discuss goal structure and self-concept in their study: ‘School goal structure: Associations with students’ perceptions of their teachers as emotionally supportive, academic self-concept, intrinsic motivation, effort, and help seeking behaviour’. Academic Self-concept is a term used when describing a students’ perception of how well or poorly they feel they are doing in school. Skaalvik & Skaalvik cite Kaplan (1980), 23 “people are motivated to be positively judged by others and to evaluate themselves positively”. Therefore, as people are attracted to situations and activities that they believe will result in a positive evaluation or that they will be able to manage, it can be expected that academic self-concept is positively related to intrinsic motivation (Skaalvik & Skaalvik, 2013). In this particular study, intrinsic motivation was tested using a survey with questions such as ‘I like doing schoolwork’, and it was concluded that “learning goal structure was positively related, both directly and indirectly, to academic self-concept and to all measures of motivation”. The importance of a positive student-teacher relationship was also highlighted in the conclusion of this study.

In 2012, Leal et al. (2012) conducted a study to examine the motivation of Accounting Science students in a public university in Brazil in light of the Self-Determination Theory. The study showed that the motivation was quite diverse amongst the students in question, with some intrinsically motivated and concerned with deepening their level of expertise and achieving adequate foundations for the future and others solely extrinsically motivated and concerned with obtaining a diploma and meeting attendance requirements. This study was consistent with previous studies. The study provided an interesting insight into the movement between intrinsic to extrinsic motivations in the students throughout their studies. The graph below (Table 2) taken from the study, showed that students started their year one of their studies at higher autonomous motivational levels (intrinsic motivation) and by the final year of their studies, year five, this is reversed showing higher levels of extrinsic motivation and demotivation (nonautonomous). Therefore, as the level of intrinsic motivation in year one is approximately double the extrinsic motivation and demotivation in year five, it can be concluded that if the intrinsic motivation is prolonged then extrinsic motivation and demotivation can possibly be avoided.

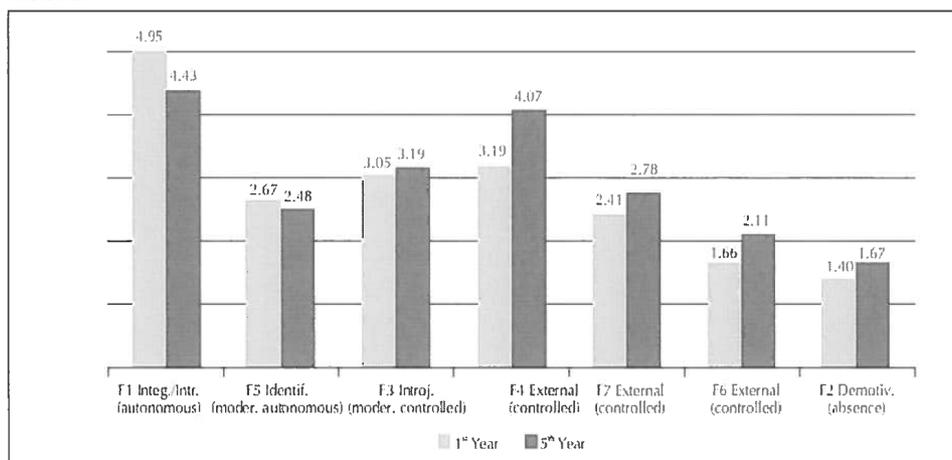


Table 2 – Motivation of freshman versus senior student (Leal et al., 2012)

### 2.6 Relationship between Extrinsic Motivation and Student Retention

In a study by R. van Elk et al. (2013), it is stated that as a result of the 'No Child Left Behind' Act of 2001, the US support local projects with performance-based pay for teachers and have made available 285 million dollars in a Teacher Incentive Fund in order to improve student performance. R. van Elk et al. (2013) argue that targeting at a regional level with a centralised incentive scheme can be more effective, however, cite many studies that found significant improvements in the educational performance of students due to financial incentives (e.g Angrist and Lavy (2009); Kremer et al. (2009); Hanushek and Raymond (2005); Dee and Jacob (2009)) as well as studies that do not support the effect of financial incentives on student achievement (e.g Fryer (2011), Springer et al. (2010)). On the other hand, A study carried out by Angrist et al., (2002), was used to determine the impact of one of the largest extrinsic motivation programmes to date, the Programa de Amplicacion de Cobertura de la Educacion Secundaria (PACES). The programme is used in Colombia to halve the cost of private education providing students with maintained satisfactory academic performance.

The study gave positive evidence in favour of incentives being used as extrinsic motivation, with "winners about 10% points more likely to have finished 8th grade". The results also showed that students that received the incentive vouchers worked less in part-time work to support their studies and were less likely to marry or cohabit as teenagers which also lead to better academic performance (Angrist et al., 2002).

### 3. Research Hypothesis & Methodology

Based on the evidence presented in the literature review, the research hypothesis for this study is shown below.

**H1:** There is a strong association between Motivation and Student Retention.

**H1a:** There is a strong association between Intrinsic Motivation and student retention.

**H1b:** There is a strong association between Extrinsic Motivation and student retention.

This study follows the positivist philosophy as the research objectives and hypotheses have been formed based on existing theories and research. This research is based on an extensive literature review of academic

journals and articles of which several hypotheses were created. The research does not hold the data collection as the starting point but is using the data to ultimately prove the hypotheses. Therefore the research is uses the deductive strategy.

#### 4. Analysis & Findings

The sample of respondents for this research was 120 students from the Claude Littner Business School at the University of West London, who participated in a paper-based survey distributed in classes. The sample consisted of undergraduate level students, UK, EU and International students from all teaching modes, full time and part time. Based on enrolment figures for the 2014/15 academic year provided by the Strategic Planning department of the university, the respondents comprised of 8.8% of the Claude Littner Business School.

##### 4.1 Demographic Composition

Students were only surveyed on 4 demographic criteria: Gender, Age, Level of Study and Fee Region (UK/EU/International). Table 3 below shows that the sample was heavily dominated by female respondents (63.3%). The HESA statistics for undergraduate students indicates an overall higher percentage for female students than male as seen in Table 4. Thus the sample is a valid representation of the sector with regards to male/female split. Although the sample is not valid representation of the Claude Littner Business School the sample is a fair representation of the University of West London as a whole (Table 5), with 62% of the institution as females and 38% males. Therefore it can be assumed that any recommendations made based on the analysis of the data would be appropriate for the entire institution, based on the gender proportions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	44	36.7	36.7	36.7
	Female	76	63.3	63.3	100.0
Total		120	100.0	100.0	

**Table 3 - Gender frequency table (sample)**

	Headcount	% of Total Headcount
Male	757,295	43.8%
Female	970,350	56.2%
<b>Grand Total</b>	<b>1,727,645</b>	<b>100%</b>

**Table 4 - Gender frequency table (Entire Sector, HESA, AY 14/15)**

	Headcount	% of Total Headcount
Male	4,052	38.0%
Female	6,614	62.0%
<b>Grand Total</b>	<b>10,666</b>	<b>100.0%</b>

**Table 5 - Gender frequency table (UWL, AY 14/15)**

The age range breakdown, shown in Table 6, shows the largest group to be in the '20 less than 30' category (30.8%) although there is a small difference between the categories. The figures for the Claude Littner Business School in academic year 14/15 are shown in Table 7, which also shows the '20 less than 30' category to hold the largest amount of students (62.1%).

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 less than 30	37	30.8	30.8	30.8
	30 less than 40	33	27.5	27.5	58.3
	40 less than 50.	24	20.0	20.0	78.3
	50 or above	26	21.7	21.7	100.0
	Total	120	100.0	100.0	

Table 6 - Age frequency table (sample)

	Headcount	% of Total Headcount
Level 3	53	3.9%
Level 4	602	44.4%
Level 5	325	23.9%
Level 6	375	27.6%
Level 7	2	0.1%
Grand Total	1,357	100.0%

Table 7 - Age frequency table (UWL CLBS AY 14/15)

The fee region heavily dominating the sample is the 'International' respondents (60%) shown in Table 8. However, this is the opposite of the Claude Littner Business School (Table 9) where the largest population are the 'UK/EU' students (78.5%).

		Fee Region			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UK/EU	48	40.0	40.0	40.0
	International	72	60.0	60.0	100.0
	Total	120	100.0	100.0	

Table 8 - Fee Region frequency table (sample)

	Headcount	% of Total Headcount
UK / EU	1,065	78.5%
International	292	21.5%
Grand Total	1,357	100.0%

Table 9 - Fee Region frequency table (UWL CLBS AY 14/15)

Table 10 below shows the frequency table for the sample by the level of study. For the purpose of this research the 6 Level 7 respondents are excluded from this analysis. The largest proportion of respondents are shown to be at Level 4 (30.8%) and Level 6 (30%) (Table 10). This is also the case in the comparison figures of the Claude Littner Business School in Table 11, where the largest amount of students are at Level 4 (44.4%) followed by Level 6 (27.6%). When comparing to the Claude Littner Business School figures (Table 11), the sample is a fair representation of the entire school population for this demographic.

		Level of Study			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Level 3	6	5.0	5.0	5.0
	Level 4	37	30.8	30.8	35.8
	Level 5	35	29.2	29.2	65.0
	Level 6	36	30.0	30.0	95.0
	Level 7	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

Table 10 – Level of Study frequency table (sample)

	Headcount	% of Total Headcount
Level 3	53	3.9%
Level 4	602	44.4%
Level 5	325	23.9%
Level 6	375	27.6%
Level 7	2	0.1%
<b>Grand Total</b>	<b>1,357</b>	<b>100.0%</b>

Table 11 – Level of Study frequency table (UWL CLBS AY 14/15)

When compared with UWL Claude Littner Business School data, the sample data shows a similarity in the age group demographic with the '20 less than 30' group holding the highest proportion in both data sets and the level of study demographic showing the highest proportion of students at Level 4. However, the gender and the fee region show differences in responses and do not resemble the composition of the Claude Littner Business School.

#### 4.2 Reliability Analysis

As the most popular method of testing reliability, Cronbach's Alpha test was used to test the reliability of the sample data for this study. A high correlation between each different item indicates they are measuring the same things as there is only small values for error, however, a low correlation indicates there is large values of error and the data is not reliable as the items are not measuring the same things (Hinton et al., 2004). Furthermore, different groups of researchers follow different acceptances of reliability. Bryman and Bell (2011), Saunders et al. (2012), De Vaus (2002) and Crosswell (2013) state the following acceptability scale: Between 0.6 and 0.8 = Acceptable, 0.8 and 0.95 = Excellent, and anything less than 0.6 is unreliable. On the other hand, Sekaran and Bougie (2013) and Churchill (2009) agree on the following acceptability scale: Between 0.5 and 0.7 = Acceptable, 0.7 and 0.95 = Excellent, and anything less than 0.5 is unreliable. All researchers state that anything between 0.96 and 1 shows the data has been manipulated and is therefore unreliable.

The reliability statistics for all the variables measured individually show an Alpha score of 0.73, 0.71 and 0.77 for intrinsic motivation (Table 12), extrinsic motivation (Table 13) and student retention (Table 14) respectively. Therefore, based on the acceptability scales above, all alpha scores are 'Acceptable' according to the first group of researchers. However, the second group of researchers would class all the individual variable alpha scores as 'Excellent'. All researchers would agree that the alpha score of 0.82 for the all the variables measured simultaneously would value as an 'Excellent' reliability (Table 15).

**Reliability Statistics**

Cronbach's Alpha	N of Items
.726	11

**Table 12 - Cronbach's Alpha test - Intrinsic Motivation variable****Reliability Statistics**

Cronbach's Alpha	N of Items
.710	11

**Table 13 - Cronbach's Alpha test - Extrinsic Motivation variable****Reliability Statistics**

Cronbach's Alpha	N of Items
.769	11

**Table 14 - Cronbach's Alpha test - Student Retention variable****Reliability Statistics**

Cronbach's Alpha	N of Items
.824	33

**Table 15 - Cronbach's Alpha test - All variables****4.3 Correlation Analysis**

Table 16 below shows a bivariate inter-correlation analysis using a Pearson correlation of co-efficient and a significance indicator. The table shows a weak relationship between intrinsic motivation and student retention (Sig. = 0.104), but a stronger relationship between extrinsic motivation and student retention. Therefore, as a result of the weak and strong relationships, hypothesis H1a is rejected and hypothesis H1b is accepted.

**Correlations**

		IntrinsicMotivation	ExtrinsicMotivation	StudentRetention
IntrinsicMotivation	Pearson Correlation	1	.541**	.149
	Sig. (2-tailed)		.000	.104
	N	120	120	120
ExtrinsicMotivation	Pearson Correlation	.541**	1	.187*
	Sig. (2-tailed)	.000		.041
	N	120	120	120
StudentRetention	Pearson Correlation	.149	.187*	1
	Sig. (2-tailed)	.104	.041	
	N	120	120	120

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 16 - Bivariate Correlation analysis of sample****4.4 Regression Analysis**

To test the relationship between the dependent variable, student retention, and the independent variables, intrinsic and extrinsic motivation, a regression analysis is used. Both intrinsic and extrinsic motivation were tested in the same test.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.195 <sup>a</sup>	.038	.022	.69039

a. Predictors: (Constant), Extrinsicismotivation, intrinsicmotivation

**Table 17 - relationship between extrinsic motivation and student retention**

Table 17 shows that there is a relationship between both intrinsic and extrinsic motivation and student retention ( $R = 0.195$ ). This supports the acceptance of all hypotheses.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.215	2	1.107	2.324	.102 <sup>b</sup>
	Residual	55.767	117	.477		
	Total	57.982	119			

a. Dependent Variable: studentretention

b. Predictors: (Constant), Extrinsicismotivation, intrinsicmotivation

**Table 18 - relationship between intrinsic motivation and student retention**

Table 18 also supports the acceptance of all hypotheses. The significance value of 0.102 is a value greater than 0.05 for each variable combined therefore the hypothesis is supported in this regression analysis.

The final regression analysis is shown in Table 19 below. In this analysis the variables were tested separately. The Beta values for intrinsic motivation (0.068) and extrinsic motivation (0.150) are both positive. This shows that there is a positive relationship between the different motivations and student retention. The figures also show that extrinsic motivation holds a stronger relationship with student retention than intrinsic motivation which suggest students can be influenced more by external factors.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.948	.295		6.592	.000
	intrinsicmotivation	.085	.134	.068	.633	.528
	Extrinsicismotivation	.172	.124	.150	1.391	.167

a. Dependent Variable: studentretention

**Table 19 - relationship between motivation and student retention**

In further testing, a Chi-square test is used to examine the relationship between extrinsic motivation and student retention with gender being used as a mediator. The results in Table 20 below show that there is a relationship and the Likelihood Ratio (0.000) shows that gender has an effect on motivation on student retention. Specifically, the data suggests that female students are more likely to be motivated extrinsically than male students.

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	40.742 <sup>a</sup>	19	.003
Likelihood Ratio	52.781	19	.000
Linear-by-Linear Association	.145	1	.703
N of Valid Cases	120		

a. 33 cells (82.5%) have expected count less than 5. The minimum expected count is 1.10.

**Table 20 - Gender as a mediator between the variables**

In conclusion, the sample presented a good variety of respondents. Although it was not a fair representation of the Claude Littner Business School, it was a fairer representation of the University of West London as a whole. Of the four demographics tested, only the Age demographic showed the closest representation of the entire population, whereas the other three showed opposing figures to those of the Claude Littner Business School comparison.

The descriptive statistics used to analyse the intrinsic and extrinsic motivation variables showed the majority of the sample population disagreed with the survey questions and zero respondents scored 'agree' or 'strongly agree' for any of the questions. The reliability showed to be acceptable/excellent. Finally, the results of the hypothesis testing showed a weak and negative relationship between intrinsic motivation and student retention, on the other hand there is a strong and positive relationship between extrinsic motivation and student retention. The findings of the correlation analysis and regression analysis support this.

The following chapter will provide the discussion of the analysis and provide further detail on the acceptance and rejection of each hypothesis as well as the limitations of this study and recommendations for further study.

## 5. Discussion and Conclusion

The purpose of this research was to identify the impact of intrinsic and extrinsic motivation on student retention.

Based on the testing of the research hypothesis we can conclude the following.

**H1 a:** There is a strong association between Intrinsic Motivation and student retention.

Based on the analysis using correlation and regression testing, the first hypothesis is rejected which is corroborated with previous studies which signify that intrinsic motivation does not have an impact on student retention (Siu et al., 2013, Lunnan Hjort, 2015).

**H1 b:** There is a strong association between Extrinsic Motivation and student retention.

Also using correlation and regression analysis to test the second hypothesis, the analysis showed the second hypothesis to be accepted. This is corroborated with the previous studies of R. van Elk et al. (2013), Angrist and Lavy (2009), Kremer et al. (2009), Hanushek and Raymond (2005), Dee and Jacob (2009), Angrist et al., (2002), Hidi (2015), Witting (2000), which signify that extrinsic motivation does have an impact on student retention.

This study has investigated the effect of motivation on student retention. Returning to the questions posed at the beginning of this study and the hypotheses, it is now possible to state that there is an effect of motivation on student retention. Specifically the study finds support for the effect of extrinsic motivation on student retention, as was expected from previous studies. Discussed below are the practical and theoretical importance of this study.

As a result of the rejection of H1a: There is a strong association between Intrinsic Motivation and student retention, the study cannot conclude that the student retention is affected by intrinsic motivation.

The results show that students are affected by extrinsic motivation whether in the form of financial gain or other, and this would sway students to continue in higher education and improve student retention. This study benefits the University of West London as it not only shows that there is a relationship between student retention and motivation but it is also an indication of how students are motivated and how they could be further motivated in the future.

A further major finding was that extrinsic motivation had a greater impact on females than males. This finding was supported by the Chi-Square test with the significance value of 0.000. This is beneficial to the University of West London as Table 5 previously showed that there is a larger population of females (62%) than males (38%) in the university. Therefore, any extrinsically motivational schemes introduced by the university would have a larger impact on the females and improve student retention at a higher rate due to the size of the proportion of males to females.

## 6. Limitations

This study has several limitations. Firstly, the study used a sample only collected in the Claude Littner Business School. It would be an improvement if further data was gathered from the other 7 schools in the institution for comparison and provide a wider and a fuller representation of the university.

There is a further limitation in the chosen data collection approach. As a convenience sample was used to obtain a sample in one school in one university, it is not possible to generalise the data. The views of the respondents are not necessarily representative of the higher education student population.

Additionally, the use of a paper based survey gathered in the classroom is also a limitation. Although this method gathered the significant amount of data in a short space of time and eliminated the need to wait for responses, the process of distribution was time consuming. A survey distributed electronically could have been more convenient, time saving and cost efficient as well as reaching a larger amount of students. Thus providing a wider sample selection from across the schools and also eliminating the previous limitation.

## 7. Recommendations and Further Research

As stated above, students are more motivated extrinsically than intrinsically in relation to student retention, therefore the following recommendations are given:

- Financial rewards – as suggested by Angrist et al. (2002), financial rewards are highly effective extrinsic motivators for students. The University of West London should consider the use of financial rewards to possibly reward attendance and/or achievement in order to improve student retention.
- Build on student-teacher relations – building the relationships between students and teachers as suggested by Reeve (2012), by investing in more staff in order to lower the student-staff ratio and have more staff to pay closer attention to students' needs is also a possible way of improving the student retention rate at the University of West London. Although Reeve (2012) suggested this in relation to intrinsic motivation, which is also beneficial, this can also be viewed as a form of extrinsic motivation and would lead to an improvement in student retention as suggested by the data in this study.

However, it has been shown that students begin their studies primarily due to intrinsic motivation which then converts to extrinsic by the end of their studies (Leal et al., 2012). A further recommendation would be to provide motivational coaching where students are reminded of the intrinsic factors that led them to embark on their studies in the first place. As the SDT continuum showed, Amotivation (demotivation) is the last step following extrinsic motivation. Therefore, it is important prolong reaching demotivation and keep students intrinsically motivated for as long as possible.

This study focused on the impact of motivation on student retention with regards to intrinsic and extrinsic motivation in the case of the University of West London, specifically the Claude Littner Business School. A deeper understanding of this relationship could be gained in further investigation following the succeeding examples:

- A comparison of the 8 schools at the University of London.
- Using a larger sample set from the University of West London and comparing this to data collected from other universities.
- A comparisons between universities in different countries.
- Look into the different varieties of extrinsic motivation and identify which, if any, have a higher impact on student retention
- Further research examining the impact of motivation on student retention using the demographics as mediators.

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