

Part (a)	Analyse and discuss Lwandle's estimate of the NPV for the proposed George school and identify any errors and/or omissions in his calculations.	Marks							
	<ul style="list-style-type: none"> Assume that Lwandle's calculations are mathematically accurate. It is not necessary to re-calculate the NPV. 								
1.	The R1,5m for the feasibility study and rezoning costs are all sunk costs and should be ignored for the purposes of the NPV analysis. The tax consequences should however be included assuming is a new entity.	1 1							
2.	Most of the cash flows occur evenly through the year (and tuition fees are received monthly in advance) – perhaps discount to the factor of ½?	1							
3.	Entrance fees should be included in cash flows upfront, that is, R243 000 in 2019 should be in 2018 year-end cash flows.	1							
4.	Average tuition fees at ESSA were R39 000 in 2017. The forecast tuition fees for the George school of R46 500 assumes an average annual increase of 9,2% for 2018 and 2019 – is this realistic and in line with inflation?	1C 1							
5.	Forecast tuition revenue assumes an 85%/84% occupancy by FY2024 ((917x100)/1 080) – this is much higher than ESSA's current occupancy of 74%! May be reasonable if mix of schools includes other new schools.	1C 1							
6.	How do forecast occupancies from FY2019 to FY2024 compare with other new schools opened? How were they determined?	1							
7.	Learner educator ratios are forecast to reach 19:1 in FY2024 – this is much higher than the ratio of 17:1 that ESSA is reaching currently.	1C 1							
8.	Employee costs are forecast to increase by 6% in FY2020 – this is lower than the tuition fee increase of 7% (7.7%). Will staff feel aggrieved?	1							
9.	Facility costs are forecast to increase by 6% per annum, but costs such as water and electricity, IT may increase at higher/lower rates than that.	1 1							
10.	Shared costs may be pre-existing costs, which are not incremental to the George school. Perhaps one should analyse which costs would increase at the George school and exclude other shared costs from the NPV analysis.	1 1							
11.	Buildings may be depreciated by 5% per annum for tax purposes (s13quin). Wear and tear on furniture should be included at the approved rate.	1 1							
12.	Finance costs should be excluded from the NPV analysis as the financing decision are already in the WACC, double counting.	1							
13.	The financing will result in tax losses in the property company, and taxable income at holding company. Tax structuring is therefore flawed.	1							
14.	Income tax & CGT calculations should be re-performed and included in the NPV analysis once adjustments have been made. The ability to utilise the assessed loss generated should be considered.	1 1							
15.	The terminal value is incorrectly assumed to be the market value of land and buildings in FY2024 . The continuing operations of the school should be determined as the terminal value.	1 1							
16.	I would strongly suggest that the terminal value be estimated using the following Gordon's growth formula or other valuation technique :	1							
17.	Free cash flow FY2025 ÷ (14% – growth in perpetuity) x 2024 PV factor.	1							
18.	Are bad debts included in the EBITDA actual bad debts, or a provision? Non cash flow provision or bad debt should be excluded from the NPV analysis. (Debtors discussion)	1							
19.	How was the 14% discount rate calculated? Justification? Educo uses the same rate for all new schools – is this appropriate?	1							
20.	Enrolments seem to vary , and decline in 2022, this seems reasonable as before this they will be spread over the grades, and after they will mainly enter from grade 8. Calculated as follows:	1							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Enrollments per year</td> <td style="width: 12.5%;">162</td> <td style="width: 12.5%;">216</td> <td style="width: 12.5%;">216</td> <td style="width: 12.5%;">108</td> <td style="width: 12.5%;">108</td> <td style="width: 12.5%;">108</td> </tr> </table>	Enrollments per year	162	216	216	108	108	108	1
Enrollments per year	162	216	216	108	108	108			
21.	Consider reasonability of other assumptions (maintenance, IT, marketing, staff)	1							
22.	There is no consideration of working capital needs of the school in the workings.	1							
	Available	33							
	<i>Communication skills – logical argument</i>	1							
	Maximum Total for part (a)	20							

Part (b) Identify the key factors, apart from the result of the NPV analysis, that Educo should consider in evaluating the potential feasibility of the proposed George school	Marks
1. Have any other quotes obtained with regard to building costs ?	1
2. Has ESSA determined what the proposed George school fees are versus other private schools in the area?	1
3. Are there sufficient potential learners in the surrounding area to reach the 'occupancy' levels that ESSA is forecasting? (Consider population growth for future growth figures as well.)	1
4. Can ESSA recruit sufficient quality educators for the new school? This may result in additional costs , bonuses etc.	1 1
5. How does the forecast ratios compare to ESSA's experience in opening other schools? Ratios such as EBITDA/revenue could be informative in this regard.	1 1
6. Are there any other more potentially lucrative schooling opportunities to fund from inception?	1
7. What impact will the investment have on Educo's solvency and liquidity ?	1
8. Consider the reasonableness of all underlying assumptions. Consider performing sensitivity analysis to identify potential risk areas where losses could be suffered.	1
9. Determine the reliability of the builder. What happens if they are not in fact finished by December 2018. This does not leave a lot of time for completion before school starts in January!. Are penalties / fines included in the contract ?	1 1
10. What effect will the current water scarcity in the Western Cape have on the school's viability? School and building needs.	1
11. Consider the current economic climate, viable for a school, strategic importance of a George school?	1
12. Is the land identified for purchase suitable for building ? Has the builder / architect considered the type of ground in their designs – the Western Cape is quite sandy, how does this affect the building costs? Is this the ideal location for a school ? Will additional transport have to be arranged.	1 1
13. Has an environmental study been done ? What is the impact of changing the land used for farming to a school – any endangered species, etc.?	1
14. How strong is the competition in George ? Are there other Curro, etc., private schools that might affect projections?	1
15. Has the effect of financing the school (R28m or R70m is a substantial upfront payment) which could change the capital structure been taken into account in the WACC calculation ?	1
16. Should purchase of an existing operational school not be considered? Particularly relevant considering the length of the accreditation process , has this been factored into the timeline. Alternatively other uses of property in growth phase.	1
Available	19
<i>Communication skills – clarity of expression</i>	1
MaximumTotal for part (b)	9

Part (c) Calculate the after-tax NPV from Educo's perspective of –									Marks
(i) entering into the proposed JMB sale and leaseback arrangement, on the assumption that Educo exercises the option to acquire the property on 31 December 2024; and									
<ul style="list-style-type: none"> Limit your analysis to cash flows up to 31 December 2024. Perform the calculations separately. 									
		1 Jan 2019	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	
		R'000	R'000	R'000	R'000	R'000	R'000	R'000	
Proceeds land		15 000							1
Proceeds bldg		70 000							1
Lease cash flows			(7 500)	(7 500)	(7 500)	(7 500)	(7 500)	(7 500)	1
Tax shield lease			2 100	2 100	2 100	2 100	2 100	2 100	1
CGT due on sale (1)			(1 142)						1C
Cost of repurchase								(115 000)	1
Cash flows		85 000	(6 542)	(5 400)	(5 400)	(5 400)	(5 400)	(120 400)	
Discount rate	14%	Or	12%-Tax						1
NPV		10 607	<i>Below</i>						
CALCULATION 1: CGT due on sale									
Proceeds Land			15 000						1
Proceeds Bldg			70 000						
Base cost Land 9000+1500x0.6			(9 900)						1
Base cost – Building			(70 000)						1
Capital gain			5 100						1C
Tax due (5 100 x 22,4%)			1 142	<i>Below</i>					
Available									11
Maximum Total for part (c)(i)									10

Part (c) Calculate the after-tax NPV from Educo's perspective of –									Marks
(ii) entering into the alternative arrangement of owning the property until 2023 and then entering into a long-term lease arrangement with AMZ Properties.									
<ul style="list-style-type: none"> Limit your analysis to cash flows up to 31 December 2024. Perform the calculations separately. 									
	1 Jan 2018	1 Jan 2019	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	
	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	
Tax shield (70 000 x 5% x 28%)			980	980	980	980	980		1
Proceeds – sale							110 000		2
Rental perpetuity (13 000 x 72% / 14% -6%)							(117 000)		2
CGT on sale (2)								(6 742)	1C
Recoupment (R980 x 5)								(4 900)	1C
Cash flows			980	980	980	980	(6 020)	(11 642)	
Discount rate	14%	(or debt)	Above						
NPV		(5 575)	NPV						1C
CGT on sale									
Proceeds – Land and buildings								110 000	1
Base cost – Land (9000 + 1500 x 60%)								(9 900)	
Base cost – Building								(70 000)	
Capital gain								30 100	
Tax due (30100 x 22.4%)								6 742	1C
Available									10
Maximum Total for part (c)(ii)									10
Part (d) Critically discuss the proposals to amend the ESSA pricing policies.									Marks

No calculations are required.		
Option 1 – offering parents a 2,5% discount		
1. Offering parents a 2,5% discount if they settle fees annually in advance could lead to an improved liquidity position as more cash flow is received upfront.		1
2. Furthermore, by offering a discount Educo may reduce the extent of bad debts that may occur as parents are more incentivised to settle fees early.		1
3. In addition, receiving a greater proportion of cash upfront could lead to a better ability to budget for large capex and reduce the need for bridging finance or short-term debt.		1 1
4. However, to the extent that this does not lead to an increase in new enrolments but is only taken up by existing parents, it could potentially lead to lower revenues from fees.		1
5. The 2,5% discount should then be compared to the return on a risk-free investment (e.g. cash or a money market fund), which could compensate for the lower revenue from fees through higher interest income.		1 1
6. The 2,5% discount is unlikely to be sufficient to entice parents to pay early.		1
Option 2 – increasing tuition fees by a once off 10% and then offering a 10% reduction		
1. Increasing fees once off by 10% is likely to lead to an increase in bad debts , particularly given the prevailing economic conditions and its likely impact on affordability.		1 1
2. Furthermore, it is likely to cause a drop in total enrolments as existing parents look for cheaper options and potential new parents choose alternative, more affordable schools.		1 1
3. In the short term, it may lead to a boost in revenue. However, parents may wait a year to see if their child achieves an 80% overall average.		1
4. Ironically, by offering a 10% refund only if learners achieve an overall average of 80% or more, the school is incentivised to have learners achieve a lower average , so as to avoiding having to refund parents		1 1
5. In addition, questions may be raised as to who will independently verify the pass marks awarded given the conflict of interest the school faces.		1
6. This may improve the reputation of the school, resulting in more revenue, however... The current mood in education regarding fees should be considered, may damage reputation. The ethical consideration of better students being subsidised by lower performers should be considered.		1 1 1
	Available	19
	Maximum	10
	<i>Communication skills – logical argument</i>	1
	Total for part (d)	11
	TOTAL FOR PART I	60