

<u>Influence</u>	<u>Equation/Data</u>	<u>Source/Justification</u>	<u>Reliability</u>
ICT	0	n/a	n/a
COMSC	1	n/a	n/a
Attractiveness Factor	IF(COMSC>=1)THEN(COMSC)ELSE(ICT)	Equation determines whether to run ICT or COMSC through the simulation	n/a
Number of pupils taking the course	IF(attractiveness_factor>=1)THEN (no_of_pupils_in_year*likelihood_to_take_subject) ELSE(no_of_pupils_in_year*0.28)	Interview – Gary Morgan Determined there are currently 28% of a year group studying ICT, Most other subject have around 40% Made the assumption if ICT moved to COMSC then attractiveness would rise in line with other subjects.	Reliable as based on current figures in school. Less reliable, as cannot guarantee pupils will want to study COMSC
Number of pupils in the year	350	Interview – Gary Morgan	Reliable as based on current figures in school
Likelihood to take the subject	0.4	Interview – Gary Morgan Most other subject have around 40% of year group studying, Made the assumption if ICT moved to COMSC then attractiveness would rise in line with other subjects.	Less reliable, as cannot guarantee pupils will want to study COMSC
Average class size	no_of_pupils_taking_course/Total_Class_Rooms	n/a	n/a
Students not accommodated	no_of_pupils_taking_course-(25*Total_Class_Rooms)	Interview – Gary Morgan If pupils increase over the current figure of 100 then they will be classified as not accommodated for	Reliable as based on current figures in school

Class rooms needed	$(\text{students_not_accommodated}/25) + \text{Total_Class_Rooms}$	n/a	n/a
Discrepancy between class rooms needed and available	$\text{class_rooms_needed} - \text{Total_Class_Rooms}$	n/a	n/a
Cost of room refurbishment	$\text{POLICY:_reallocate_rooms} * 5000$	Interview – Gary Morgan £5,000 to refurbish a room for ICT/COMSC	Reliable as based on current figures in school
POLICY: Reallocate rooms	IF(discrepancy_between_class_rooms_needed_and_available >= 1) THEN(discrepancy_between_class_rooms_needed_and_available) ELSE(0)	If there are not enough rooms to accommodate all the pupils then Policy action to get another room kicks in	n/a
Gaining rooms	$\text{POLICY:_reallocate_rooms}$	n/a	n/a
Total Class rooms	4	Interview – Gary Morgan Currently 4 ICT suits	Reliable as based on current figures in school
Loosing rooms	$\text{POLICY:_reallocate_rooms}$	Room is lost as it is now in use	n/a
Teachers needed	$(\text{Total_Class_Rooms_Available} * \text{students_not_accommodated}/25) + \text{Total_Experienced_Teachers}$	Interview – Gary Morgan Teacher is needed for every 25 pupils	Reliable as based on current figures in school
Discrepancy between teachers needed and available	$\text{teachers_needed} - \text{Total_Experienced_Teachers}$	n/a	n/a
Cost of recruitment	$\text{POLICY:_recruit_more_teachers} * 25000$	Interview – Gary Morgan £25,000 is the average starting teacher wage	Reliable as based on current figures in school

POLICY: Recruit more teachers	IF(discrepancy_between_teachers_needed_and_available>=1) THEN(discrepancy_between_teachers_needed_and_available) ELSE(0)	If there is not enough teachers for the number of pupils then policy action to recruit another teacher kicks in	n/a
Training Recruits	(Total_Experienced_Teachers*(staff_turnover_rate/100)) +POLICY:_recruit_more_teachers	n/a	n/a
New teachers starting	0	Interview – Gary Morgan Very rarely are new teachers hired	Reliable as based on current figures in school
Teachers in training	1	Interview – Gary Morgan Made the assumption there is usually some training in progress, even if it is just maintaining current teaching level.	Reliable as based on current figures in school
Teachers gaining experience	Conveyor 4	Interview – Gary Morgan If there are no new teachers starting then training will just be focused on those currently employed	Reliable as based on current figures in school
Gaining experience	2 years transit time	I have made the assumption that it takes two year for a teacher to gain real experience, this is a common industry standard. Evidence of this can be found in the Teach Scotland document published by the Scottish Government which details how salaries are based on how many years' experience. [5] This is a reasonable assumption to make as teachers move one point up the salary scale after each year of teaching.	Reliable as the assumption is made based on accurate data published by a trusted source.
Total experienced teachers	4	Interview – Gary Morgan	Reliable as based on current figures in school
Teachers leaving	(Total_Experienced_Teachers*staff_turnover_rate/100)	n/a	n/a

Staff turnover rate	7.5%	Interview – Gary Morgan 11leaving/150 total staff	Reliable as based on current figures in school
Equipment needed	Total_Class_Rooms_Available.students_not_accompodated +Total_Available_Equipment	n/a	n/a
Discrepancy between equipment needed and available	equipment_needed-Total_Available_Equipment	n/a	n/a
Cost of equipment	POLICY:_purchase_more_equipment*500	Interview – Gary Morgan Cost of each computer is £500	Reliable as based on current figures in school
POLICY: Purchase more equipment	IF(discrepancy_between_equipment_needed_and_available>=1) THEN(discrepancy_between_equipment_needed_and_available) ELSE(0)	If there is not enough computers for each pupil studying COMSC the Policy action to buy more kicks in	n/a
Gaining equipment	POLICY:_purchase_more_equipment	n/a	n/a
Total equipment available	100	Interview – Gary Morgan	Reliable as based on current figures in school
Losing equipment	POLICY:_purchase_more_equipment	n/a	n/a
Budget	140000	Interview – Gary Morgan Based on last year's budget figures	Reliable as based on current figures in school
Recruitment fraction	0.3	Interview – Gary Morgan Based on last year's budget figures, under the assumption more teachers were needed, if not it would allocated to a different area	Reliable as based on current figures in school, however this spending will fluctuate year to year

			depending on which department has the greatest needs.
Equipment fraction	0.2	Interview – Gary Morgan Based on last year’s budget figures, under the assumption more equipment was needed, if not it would allocated to a different area	Reliable as based on current figures in school, however this spending will fluctuate year to year depending on which department has the greatest needs.
Training fraction	0.05	Interview – Gary Morgan Based on last year’s budget figures, under the assumption more teachers needed training, if not it would allocated to a different area	Reliable as based on current figures in school, however this spending will fluctuate year to year depending on which department has the greatest needs.
Building fraction	0.1	Interview – Gary Morgan Based on last year’s budget figures, under the assumption building work was needed, if not it would allocated to a different area	Reliable as based on current figures in school, however this spending will fluctuate year to year depending on which department has the greatest needs.
Gaining funds	$(\text{BUDGET} * \text{buildings_fraction}) +$ $(\text{BUDGET} * \text{equipment_fraction}) +$ $(\text{BUDGET} * \text{recruitment_fraction}) +$ $(\text{BUDGET} * \text{training_fraction})$	n/a	n/a
Total funds available	0	n/a	n/a

Losing funds	Equipment_Available.cost_of_equipment_purchase+ Total_Class_Rooms_Available.cost_of_rm_refurb+ (Total_Teachers_Available.cost_of_recruitment)	Interview – Gary Morgan Money spent on different areas.	Reliable as based on current figures in school
--------------	---	--	--