

Table 3
Knowledge Commodity Capability Factors Identified from the Systematic Literature Review

Resource category	Resource subcategory			Capabilities	Functionings
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>		
Knowledge, skills, and abilities – literacy/competence (technological, pedagogical, subject content)*5,6,7,10,11,23,26,28,29,30,31,32,39,40,42,50,54,55,57,69,74,80,83,84	Experience*6,39,54,55	Class size*28,42,69	Software/materials/laboratories/libraries*28,42,57,69	SSTs valued using ICT in teaching*29,50,83	Confidence/self-efficacy*31,42,54,55,74
	Complexity of cognitive level required*10,11,32,42,57	Time*42,57,69,74,80	Curriculum*28,42,57	SSTs valued using effective teaching strategies*40,69	Pedagogical competence*39,42,84
	Practical application*28,30	Teaching load*80,83	Guidelines (policy)*42,84	SSTs valued using purpose of subject*23	Learner performance*74,80
	Pedagogy use*28,54	Subject foundation (learners)*28	External organisation involvement*23,42		Providing opportunity for learners to engage*23,32,69
	Gender*5,6	Fear of subject (learners)*28	School category*39		ICT integration*5
	Qualification*28,42	Motivation (learners)*23,28	School location*5		Content knowledge competence*10,42
	Training*23,42	Allowing dialogue/questions (teacher)*28	Learner support (home)*28		High subject knowledge (scores)*7
	Age*6	Number of teachers*28	Learner culture*23		Proof of qualification*42
	Confidence to master teaching strategies*84	Supervision*39	Community education level*28		
	Grade taught*6	Role models/mentors*42,74	Parental socio-economic status*28		
	Motivation*28	ICT*23	Societal norms and values*57		
	Planning*28	Generation differences*23			
	Initiative*42				
	Subject/field*5				
	Understanding of subject*57				
	Values*23				

Training and (professional) development* ^{4,5,12,28,31,33,37,43,48,57,60,78,81,83}	Motivation* ^{48,60} Attitude* ⁷⁸ Experience (technology)* ³¹ Incentive for refresher* ⁸¹ Practical application* ²⁸ Previous tech training* ³¹ Previous training institution* ³¹ Qualification* ³¹ Technology educational qualification* ³¹ Ability application* ⁴⁸ Fear of criticism* ⁶⁰	Leadership support* ^{33,48,60,81,83} Mentors/role models* ^{48,60,81} Time* ^{60,81} Collegial collaboration* ^{60,81} Feedback* ⁴⁸ Class size* ⁴⁸ Workload* ^{60,81} Technology support* ⁴³ Teaching schedules* ⁶⁰	Availability of materials and resources* ^{48,81} Government policy* ^{60,83} Curriculum* ^{48,60} Value attributed by external community* ⁴⁸ Schooling context* ⁴⁸ Province* ³¹ Union support* ⁶⁰	Placed high value on ICT training* ³⁷ Valued involvement in decision-making* ⁸³ Valued attentive leadership* ⁴⁸ Valued awareness of areas to improve* ⁴⁸ Enablement of opportunity to train* ⁴	Learner performance* ^{48,60} Improvement/development in competence* ^{31,60} Participation in school-based professional development* ^{48,81} Commitment to teaching* ^{48,81} Use of tools (ICT)* ¹² Motivation* ⁴⁸ Attitude* ⁶⁰ Confidence* ⁶⁰
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* Number given as listed in reference list; SST = secondary school teacher

Table 4
Soft Commodity Capability Factors Identified from the Systematic Literature Review

Resource category	Resource subcategory			Capabilities	Functionings
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>	<i>Valued/enabled</i>	
Secondary school teacher being* ^{16,19,22,26,30,63,68,71,74,80,83}	Behaviour/habits* ^{16,26,57,80} Gender* ^{19,30,74} Value assigned to subject (meaning and interest)* ^{57,80} Expectations of learners* ^{30,80}	Teacher-learner relationships* ^{26,80} Leaders/mentors/role models* ^{16,80} Teachers' collaboration/support* ^{16,26} School performance standards/levels* ⁸⁰	Policy support/guidance* ¹⁶ Subject/field requirements* ¹⁶ Community collaboration* ¹⁶ Funding* ¹⁶	Valued position as systemic resource* ⁸³ Valued order and discipline* ⁸³ Valued transfer of knowledge* ²⁶	Confidence/self-efficacy* ⁷¹ Learner performance* ^{16,68,80} Achievement of subject outcomes* ¹⁶ Meaning in work* ²⁶

Resource category	Resource subcategory			Capabilities	Functionings
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>	<i>Valued/enabled</i>	
	Expectations and beliefs* ^{16,26}	School culture* ⁸⁰	School infrastructure* ¹⁶	Valued making a positive difference/influence* ²⁶	
	Ability application* ⁸⁰	Support services (for learners)* ⁸⁰	Curriculum* ¹⁶	Valued positive relationships with learners* ²⁶	
	Drive* ²²	School staffing* ¹⁶		Valued physical health* ⁶³ Enabled to be involved in decision-making* ⁸³	
	Qualification* ⁶⁸	Teaching load allocation* ⁸³			
	Skill level* ⁶⁸	Time allocation/management* ¹⁶			
	Subject/field* ¹⁶	Recognition (feedback)* ²⁶			
	Understanding of learner contexts* ⁸⁰	Tangible results* ²⁶			
Attitude towards ICT* ^{1,17,29,50,51}	Ability application* ^{17,51}	Time (in class)* ²⁹		Valued computers as educational tools* ²⁹	ICT adoption and use in teaching* ²⁹
	Qualification* ¹	Leadership support* ⁵¹		Valued the teaching empowerment and confidence that came with using ICT* ⁵⁰	
	Relative advantage* ²⁹	Technical support* ⁵¹			
	Extrinsic motivation* ²⁹	Access to ICT infrastructure and resources* ⁵¹			
	Perceived usefulness* ²⁹				
	Cognitive complexity level* ^{29,51}				
	Age* ⁵¹				
Stress* ^{22,58,64,80}	Behavioural control* ⁵⁰	Contractual problems* ⁶⁴			Stress management* ^{58,64}
	Gender* ^{22,58}	Nature of the work* ⁶⁴			Learner performance* ⁸⁰
	Age* ⁶⁴	Work environment* ⁶⁴			
		Work relationships* ⁶⁴			
		Staff shortages* ⁸⁰			

Table 4 (continued)*Soft Commodity Capability Factors Identified from the Systematic Literature Review*

Resource category	Resource subcategory			Capabilities	Functionings
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>	<i>Valued/enabled</i>	
Confidence (perceived competence)* ^{4,3} 2,43,50,51,54,55,71,74,84	Experience* ⁵⁴ Level of exposure* ^{43,51}			Valued building confidence (to teach and learn)* ^{50,74}	Effective use of tools* ⁷¹ Competence* ^{74,84}
Motivation (teachers)* ^{13,67,79,80}	Financial incentive* ¹³ Study leave* ⁶⁷	Prompt salary payment* ⁶⁷ Exposure to conferences and seminars* ⁶⁷ Leadership inspiration* ⁷⁹	Availability of teaching materials* ⁶⁷		Attitude towards subject* ⁸⁰ Learner performance* ⁶⁷
Decision-making* ^{9,34,83}				Perceived themselves as being able to add value* ^{34,83} Valued being involved in decision-making* ⁸³ Enabled to be involved in decision-making* ^{9,34,83}	Involvement in selection and organisation of learning experiences* ^{34,83}
Communication* ^{14,28,57}		Abstractness of concepts* ^{28,57}			Innovative use of computer technology in class* ¹⁴ Turnover intention* ²
Job satisfaction* ^{274,78} 8	Attitude* ⁷⁸	Income* ² Job security* ⁷⁴			

* Number given as listed in reference list

Table 5: Hard Commodity Capability Factors Identified from the Systematic Literature Review

Resource category	Resource subcategories			Capabilities	Functionings
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>	<i>Valued/enabled</i>	
ICT*1,3,4,5,14,15,17,21,27,29,32,37,43,45,46,49,50,51,52,63,70,71,75,77,83,84	Ability application*15,17,21,32,37,51,70,75,77 Competence/skill level*4,32,15,17,37,45,46,63,70,75 Confidence*3,4,15,32,70,75,77 Subject field*5,15,46,50,52,75 Training*17,21,32,37,45,63 Attitude towards ICT*32,45,51,63 Use experience*4,70,75 Pedagogy use*17,83,84 Motivation*45,49,51,70 Age*44,45,51,70 Gender*5,14,51,71 Qualification*1,44,51 Experience*14,45 Subject perspective (narrow/broad)*17 Effort expectancy*49 Appetite for change*45 Awareness of policies*45 Habits*49 Self-concept*3 Exposure*77	Social influence*49 Time*4,21,27,37,46,51,70,75 Training (opportunity and/or type)*4,15,17,70 Leadership support*4,15,17,21,77 Access*15,50,77,84 Learner attitude*51,63 Mentors*32,77 Class size*15,70 Work-life balance*63,70 Role conflict*15 Impact of use on learning process*21 Learner unfamiliarity*37 Media habits (learners)*32 Workload*46 Access schedules*46	ICT infrastructure, facilities, and equipment*4,15,21,37,43,46,50,70,75,84 Technology/technical support*4,15,46,70,75,84 School facilitating conditions*32,45,49,75 School policy/budget*15,46,70 Crime/security risk (society)*46,70 School type*14,50 School location*5,17 Reliability of service providers (electricity and Internet)*46,75 Government policy*51,70 Government funding*45,70 Curriculum guidelines/materials*17,46 Curriculum content load*27 Examination focus*17 Parent socio economic status*70 Parent involvement*70 Cost of devices*45	Perceived high value on ICT integration*5,17,37,43,45,50,51,52,70,75 Enabled to benefit learners*27,37,43,52,75 Placed high value on ICT use*5,29,50,84 Enabled to use ICT*15,27,70,77 Placed high value on ICT training*37,77 Enabled to integrate ICT in pedagogy*15,52 Valued teaching using ICT without barriers*15 Valued context- and content-applicable pedagogical methods*17 Enabled for ICT to be easy to use*27 Have ICT support in all subjects*15 Enabled to take advantage of ICT technology*15 Enabled to deliver curriculum using technology available at school*15 Enabled to be involved in policymaking*15 Enabled to integrate ICT in various pedagogical methods*52	Acceptance and use of ICT*1,5,14,27,43,45,46,50,70,75 Attitude towards ICT*3,15,46,51,77 Interaction, communication, and collaboration*17,45,46,52 Provision of quality education/value*15,45,77 Learner performance*44,46,77 Enriched learning experience*45,52 ICT competence*46,63 Pedagogical ICT integration*17,84 Autonomy*27 Conducive learning and teaching environment*15,46 Concept structure consistency*52 Real-time process/ learning feedback*52 Access to educational resources and storage*45 Language assistance*45 Time management*45 Sponsor funding*46 Leadership engagement*46

Resource category	Resource subcategories			Capabilities	Functionings
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>	<i>Valued/enabled</i>	
<i>Hard Commodity Capability Factors Identified from the Systematic Literature Review</i> Curriculum*17,28,34,35,57,65,83	Level of subject understanding*35 Ability application*65 Pre-service training*35	Contextual fit of materials*17,65 Learner level of competence*65 Class size*65	Curriculum content/load*28,57,65 Applicability of assessment*57 Extra-curricular offering*56 Mark inflation*85	Valued being involved in decision-making*83 Enabled to be involved in decision-making*83	Effective implementation of curriculum*34,35,57
Assessment*47,62,85	Conceptual understanding*47 Effort required*85	Cognitive/non-cognitive domains*47 Time intensity*85 Class size*85 Workload*85		Freedom to choose participation*62 Helped learners develop*85	Effective assessment practices*47 Participation in testing programmes*62 Learner performance*86
Teaching aids*57,69,86	Planning*86		Available materials and facilities*57 Standards (quality)*69,86	Practical application*86	
Teacher networks*17,76	Attendance*76	Regularity of meetings*76 Interschool networking*76			Professional development*17,76
Media*56,57,65			Media impact on learners*56,57 Availability, complexity, and depth of support materials*65 Examination focus*65		
Time*4,37,57,70,81,84	Time use*4,57	Time requirements*4,37,57,70,81,84			

* Number given as listed in reference list

Table 6*Organisational Commodity Capability Factors Identified from the Systematic Literature Review*

Resource category	Resource subcategory			Capabilities	Functionings
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>	<i>Valued/enabled</i>	
Leadership (principal, vice-principal, heads of department (HODs))* ^{5,8,20,25,26,33,39,53,59,73,74,78,79,83}	Qualification (master's)* ²⁵ Gender* ^{59,74} Compensation* ⁷⁴ Meaningfulness* ⁷⁴ Expectations* ⁷³	Role modelling (principal)* ^{33,73} Leadership style* ^{33,59} Inspirational motivation* ^{73,79} HOD communication/collaboration* ^{33,83} Supervision* ⁵³ Evaluation processes* ⁵³ Qualification (principal)* ²⁵ Individualised consideration* ⁵⁹ Idealised influence (attributed)* ⁷⁹ Support given* ⁷⁴ Decision-making structures* ⁸³ Principal engagement* ⁷³ School culture* ⁷³ Stakeholder relationships and collaboration* ⁷³ Shared responsibility/accountability* ⁷³	Specific school* ⁵⁹ Community involvement* ⁷³	Valued effective teaching/learning environment* ⁵³ Valued it as key position to affect/influence* ⁷⁴ Involvement in decisions that affected their work* ⁸³ Valued active/present leadership figures* ³³ Salary and benefits* ⁷⁴	Job satisfaction* ^{26,59,74} Learner performance* ^{33,73} Leadership effectiveness* ^{25,74} Effective learning environment* ^{8,53} Effective pedagogical practices* ²⁰ Job performance* ²⁰ Professional development* ⁷⁸ School development* ³³ Collaboration (multi-stakeholders)* ³³ Teacher support* ⁸
Job role* ³⁶	Expectations* ³⁶ Ability application* ³⁶ Incentive/reward* ³⁶	Staff complement* ³⁶ Leadership support* ³⁶ Support/administrative services (school)* ³⁶ Work conditions* ³⁶	Policy (implementation)* ³⁶ Systemic alignment* ³⁶ Societal acceptance* ³⁶		Teacher engagement/commitment* ³⁶ Affective reaction/satisfaction* ³⁶ Role clarity/focus* ³⁶ Career progression* ³⁶

Table 6 (continued)

Organisational Commodity Capability Factors Identified from the Systematic Literature Review

Resource category	Resource sub-category			Capability	Functioning
	<i>Personal</i>	<i>Social</i>	<i>Environmental</i>		

Learner discipline*2,18,24,38,41,56,72,80,82,85	Experience*18 SSTs late/absent (school)*56 View of discipline*38,72 Belief about utility of different disciplinary methods*24,38 Ethics*41 Engagement*41	Background and behaviour/habits (learners)*56,80 Power relations (learners and teachers)*41,56 Beliefs about utility of different disciplinary methods (learners)*24,38 Effectiveness of methods*24,41 Time consumption*24,41 Restlessness/inattention (learners)*56 Low self-concept (learners)*85 Extra-curricular activities (school)*56 Learners' interaction/collaboration*80 Locus of control (learners)*80 Class size*24 School culture*38 Availability of teaching resources*24	Ethics and justice of practices (society)*2,41,56 Value system (society)*38,56 Parent views*56,72 Type of school (co-ed/single)*82 School location*82 School environment (school)*56 Rules and regulations (school)*56 Parental support*41 Home conditions (society)*56 Mass media (society)*56 Policy on discipline*41	Valued effective disciplinary measures*38,41 Conducive learning and teaching environment*72 Creation of order and attention in class*41	Learner performance*56,72,80 Controlling classroom behaviour*18 Awareness and use of non-violent disciplinary methods*82 Development of good conduct (in learners)*38 Teacher empowerment*41 Balanced rights (justice)*41 Order and attention in class*41 Sustainable behavioural change/results*24
Organisational health*66			School sector (public/private)*66		Learner performance*66

Organisational justice* ^{2,74,83}	Distributive* ² Procedural* ²	Politics, corruption, bribery, religion, and tribalism* ⁷⁴	Valued involvement in decision- making* ⁸³ Enabled to have order and discipline in the learning and teaching environment* ⁸³	Turnover intention* ²
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