Input: LAgg

i	Value	VideoID	Start	End	Duration	Focus Concept	Focus Topic	Focus Concept	Focus Topic	Focus Concept	Focus Topic	Focus Concept	Focus Topic
0		kMcmjLCkyJ7E1	0	0.4	40	Thinking	PsychologicalHealth	Mum	SocialRelationship	Treatment	LevelOfIndependence		
1		kMcmjLCkyJ7E4	0.43	1.24	41	LungCancer, Pain	PhysicalHealth	Training	Environment				
2		kMcmjLCkyJ7E7	1.27	2.32	65	Mum	SocialRelationship						
3		kMcmjLCkyJ7E12	2.34	3.25	51	LungCancer, Energy	PhysicalHealth						
4		rOjxEyrgBG01	0.04	2.43	159	LungCancer	PhysicalHealth						
5		rOjxEyrgBG012	3.25	4.01	36	Treatment	LevelOfIndependence	Pain	PhysicalHealth	Noise	Environment	Child	SocialRelationship
6		rOjxEyrgBG014	4.03	4.58	56	LungCancer	PhysicalHealth						
7		rOjxEyrgBG017	5.01	5.43	42	Insurance	LevelOfIndependence						
8		nWz-GB1Q-uU1	0	2.16	136	Dad	SocialRelationship	Temple	PersonalValuesAndBeliefs				
9		nWz-GB1Q-uU6	2.22	2.31	9	Dad	SocialRelationship	Hope	PsychologicalHealth				
10		hQ3GxQZxdA1	0.01	1.23	82	Caregiver	SocialRelationship	LungCancer	PhysicalHealth	Treatment	LevelOfIndependence		
11		hQ3GxQZxdA9	1.54	3.14	80	Pneumonia	PhysicalHealth						
12		hQ3GxQZxdA15	3.17	4.39	82	LungCancer	PhysicalHealth						
13		hQ3GxQZxdA21	4.41	6.49	128	Tumor	PhysicalHealth						
14		hQ3GxQZxdA31	6.52	7.28	36	Wife	SocialRelationship						
15		hQ3GxQZxdA37	8.1	8.47	37	Thinking	PsychologicalHealth						
16		hQ3GxQZxdA40	8.48	10.1	82	Wife, Community	SocialRelationship	Tumor	PhysicalHealth				
17		hQ3GxQZxdA46	10.12	10.47	35	Friend	SocialRelationship	LungCancer	PhysicalHealth				
18		hQ3GxQZxdA49	10.48	11.23	35	Caregiver	SocialRelationship						
19		hQ3GxQZxdA55	12.04	12.38	34	Caregiver	SocialRelationship						
20		hQ3GxQZxdA58	12.39	13.24	45	Tumor	PhysicalHealth						
21		hQ3GxQZxdA61	13.25	14.02	37	Treatment	LevelOfIndependence						
22		hQ3GxQZxdA64	14.03	14.43	40	Pain	PhysicalHealth	Caregiver	SocialRelationship				
23		hQ3GxQZxdA67	14.45	15.11	26	Community	SocialRelationship						
24		eY388Hm1uB1	0	1.13	73	Sleep, Pain	PhysicalHealth						
25		eY388Hm1uB8	1.54	3.5	116	Pain, Sleep	PhysicalHealth	Thinking	PsychologicalHealth				
26		eY388Hm1uB18	4.37	5.16	39	Pain	PhysicalHealth	Hope	PsychologicalHealth				
27		eY388Hm1uB23	5.53	6.37	44	Sleep	PhysicalHealth						
28		yX893FeE1E1	0.01	2.19	138	LungCancer	PhysicalHealth						
29		wwiwj2w7d6o1	0.17	1.12	55	Mum, Family	SocialRelationship						
30		wwiwj2w7d6o5	1.14	3.12	118	Treatment	LevelOfIndependence	Fear	PsychologicalHealth				
31		wwiwj2w7d6o13	3.14	3.5	36	Child	SocialRelationship						
32		uJc Y4oMLXEY1	0	0.42	42	ShortnessOfBreath	PhysicalHealth						
33		uJc Y4oMLXEY3	0.46	1.35	49	Copd	PhysicalHealth	Pneumonia					
34		uJc Y4oMLXEY5	1.38	2.15	37	Exercise	Environment						
35		uJc Y4oMLXEY9	3.03	3.19	16	Copd	PhysicalHealth						
36		jR5nFnTULQ1	0.05	0.52	47	ShortnessOfBreath	PhysicalHealth						
37		jR5nFnTULQ3	0.56	1.46	50	LungDisease	PhysicalHealth	Treatment	LevelOfIndependence				
38		jR5nFnTULQ7	2.41	3.31	50	Hope	PsychologicalHealth						
39		jR5nFnTULQ9	3.36	4.22	46	LungDisease	PhysicalHealth						
40		jR5nFnTULQ11	4.25	4.63	18	Family	SocialRelationship						
41		rh832VbSN63	0.02	1.39	97	LungCancer	PhysicalHealth	Treatment	LevelOfIndependence				
42		rh832VbSN68	1.43	2.18	35	Tumor	PhysicalHealth						
43		rh832VbSN610	2.19	2.49	30	Hope	PsychologicalHealth						
44		0ft_0JyfmM1	0.01	0.49	48	Friend	SocialRelationship						
45		0ft_0JyfmM13	0.51	1.4	49	PulmonaryFibrosis	PhysicalHealth						
46		0ft_0JyfmM17	2.19	3.17	58	Husband	SocialRelationship						
47		0ft_0JyfmM11	4.01	4.23	22	Caregiver	SocialRelationship						
48		H8Fnd2ffSV63	0.35	1.35	60	Pneumonia, Rest	PhysicalHealth	Thinking	PsychologicalHealth				
49		H8Fnd2ffSV67	1.38	2.33	55	LungCancer	PhysicalHealth	Tumor					
50		H8Fnd2ffSV618	4.25	6.14	109	Meditation	PersonalValuesAndBeliefs						
51		H8Fnd2ffSV625	6.15	6.4	25	Pneumonia, Rest	PhysicalHealth						
52		H8Fnd2ffSV630	7.31	7.51	20	LungCancer	PhysicalHealth						
53		3mcWSnFNFRM1	0	1.35	95	Treatment	LevelOfIndependence						
54		wAVrB6ic_C1A1	0.13	0.54	41	Cough	PhysicalHealth						
55		wAVrB6ic_C1A3	0.55	1.3	35	Thinking	PsychologicalHealth						
56		wAVrB6ic_C1A5	1.34	2.26	52	Mum	SocialRelationship	Energy, Sleep	PhysicalHealth				
57		wAVrB6ic_C1A8	2.28	3.01	33	LungCancer	PhysicalHealth						
58		wAVrB6ic_C1A10	3.04	3.51	47	Husband	SocialRelationship						
59		wAVrB6ic_C1A12	3.52	4.22	30	Family	SocialRelationship						
60		xHnBGcrDZcU2	0.01	4.07	246	Copd	PhysicalHealth						
61		VvSgJ12bPsn1	0.1	0.54	44	Pneumonia	PhysicalHealth						
62		VvSgJ12bPsn2	0.59	2.2	81	Exercise	Environment	Strength	PhysicalHealth	Treatment	LevelOfIndependence		
63		VvSgJ12bPsn4	2.25	3.23	58	Hope	PsychologicalHealth						
64		jDTcp2dSq41	0.11	2.38	147	Copd	PhysicalHealth						
65		jDTcp2dSq413	3.57	4.22	25	Community, Family	SocialRelationship						
66		ZU_9bCB-0B1	0.04	1.48	104	Copd	PhysicalHealth						
67		NSSTzjQWpK8	0.42	1.23	41	Covid	PhysicalHealth						
68		NSSTzjQWpK5	1.26	2.19	53	Husband	SocialRelationship						
69		NSSTzjQWpK6	3	4.27	87	Pneumonia	PhysicalHealth						
70		NSSTzjQWpK14	4.3	5.13	43	Treatment	LevelOfIndependence						
71		NSSTzjQWpK16	5.17	6.46	89	Pneumonia, Rest	PhysicalHealth						
72		NSSTzjQWpK22	7.11	7.29	18	Determination	PsychologicalHealth						
73		6LY0qgGsjxw3	0.45	1.41	56	Cough	PhysicalHealth						
74		6LY0qgGsjxw6	1.43	2.15	32	Pneumonia	PhysicalHealth						
75		6LY0qgGsjxw8	2.16	2.56	40	Family	SocialRelationship						
76		eDKVXL-TJY1	0.09	0.5	41	Christian	PersonalValuesAndBeliefs						
77		eDKVXL-TJY7	1.31	2.09	38	PulmonaryHypertension	PhysicalHealth						
78		eDKVXL-TJY10	2.11	2.54	43	Strength	PhysicalHealth	Child	SocialRelationship				
79		aHABVZDxnk1	0.06	0.41	35	Rest	PhysicalHealth						
80		aHABVZDxnk3	0.43	1.17	34	PulmonaryFibrosis, Pneumonia	PhysicalHealth						
81		aHABVZDxnk5	1.19	2.15	56	Drug	PhysicalHealth						
82		aHABVZDxnk10	2.58	3.39	41	Treatment	LevelOfIndependence	Rehabilitation	Environment				
83		aHABVZDxnk12	3.43	4.08	26	Hope	PsychologicalHealth						
84		ireBTrQ9SGY1	0	2.03	123	Vaping	PhysicalHealth						
85		ireBTrQ9SGY9	2.06	2.47	41	Drug	PhysicalHealth	Friend	SocialRelationship				
86		GV3Rewq6G1FA1	0.02	1.29	87	Copd, Smoking	PhysicalHealth						
87		GV3Rewq6G1FA5	1.31	5.07	216	Exercise	Environment						
88		Nxrs6_e_gxw1	0.02	2.34	152	Copd	PhysicalHealth						
89		Nxrs6_e_gxw8	2.39	3.25	46	Family	SocialRelationship						
90		Nxrs6_e_gxw10	3.3	4.16	46	Copd	PhysicalHealth	Thinking	PsychologicalHealth				
91		qJkxtoKyfy3c1	0	0.31	31	Cough	PhysicalHealth						
92		qJkxtoKyfy3c2	0.36	1.08	33	Guilt	PsychologicalHealth						
93		qJkxtoKyfy3c3	1.13	1.44	31	LungCancer	PhysicalHealth						
94		qJkxtoKyfy3c4	1.5	3.05	75	Family, Friend	SocialRelationship	Tumor	PhysicalHealth	Training	Environment		
95		qJkxtoKyfy3c6	3.11	4.1	59	Mom, Friend	SocialRelationship	LungCancer	PhysicalHealth				
96		PDdTB8_3ek1	0	0.38	38	PulmonaryHypertension	PhysicalHealth						
97		PDdTB8_3ek3	0.42	1.43	61	Rest, ShortnessOfBreath	PhysicalHealth						
98		PDdTB8_3ek9	2.57	3.5	53	Treatment	LevelOfIndependence						
99		3HerBNmdSY1	0.05	0.57	52	LungDisease	PhysicalHealth						
100		3HerBNmdSY8	2.2	2.54	34	Family, Child	SocialRelationship						
101		OHeUJ0gJBmc1	0	1.21	81	Family	SocialRelationship						
102		OHeUJ0gJBmc7	1.23	2.08	45	Smoking, Cough	PhysicalHealth						
103		OHeUJ0gJBmc14	2.52	3.34	42	Dad	SocialRelationship	LungCancer	PhysicalHealth				
104		OHeUJ0gJBmc20	4.15	4.49	34	Gym	Environment	Grandchild	SocialRelationship	Thinking	PsychologicalHealth		
105		OHeKEK_J2CB3	0.51	1.26	75	Family, Friend	SocialRelationship						
106		OHeKEK_J2CB13	4.39	5.03	24	Friend	SocialRelationship						
107		4AWZDSK1qWB1	0.08	2.14	126	EndOfLifeCare	LevelOfIndependence	Friend	SocialRelationship				
108		4AWZDSK1qWB5	3.01	3.44	43	Exercise	Environment	MentalHealth	PsychologicalHealth	Family	SocialRelationship		
109		kH8Tbs3DFdM1	0	2.27	147	Child	SocialRelationship						
110		EBnR52ucFdw1	0	0.45	45	Pain	PhysicalHealth						
111		EBnR52ucFdw4	0.46	1.29	43	Alcohol, Diet	PhysicalHealth	Treatment	LevelOfIndependence				
112		EBnR52ucFdw7	1.3	2.14	44	Training	Environment						
113		n7KH6GEC3Ggz1	0	0.47	47	Husband	SocialRelationship						
114		n7KH6GEC3Ggz10	3.23	4.17	54	Wife	SocialRelationship						
115		WSNT-0beCD41	0	0.5	50	Pain, Drug	PhysicalHealth						
116		WSNT-0beCD46	1.27	2.01	34	LungCancer	PhysicalHealth						
117		WSNT-0beCD48	2.04	2.4	36	Wife	SocialRelationship						
118		WSNT-0beCD410	2.44	3.34	50	Treatment	LevelOfIndependence						
119		WSNT-0beCD418	5.06	5.37	31	Concentration	PsychologicalHealth	Strength	PhysicalHealth				
120		WSNT-0beCD420	5.39	6.29	50	Treatment	LevelOfIndependence						
121		2utaxggaSuk1	0	0.38	38	Pain	PhysicalHealth						
122		2utaxggaSuk3	0.47	2.39	102	Treatment	LevelOfIndependence						

Concept Path

Concept	Parent		Topic
AcquiringInformation			Environment
Behaviour			PhysicalHealth
Bookmage			PsychologicalHealth
CognitiveFunction			PsychologicalHealth
DailyLiving			LevelOfIndependence
Diet	Behaviour		PhysicalHealth
EconomicStatus			Environment
Energy			PhysicalHealth
Financialissue			Environment
Legalissue			LevelOfIndependence
MedicalSelfCare			LevelOfIndependence
Mobility			LevelOfIndependence
NegativeFeeling			PsychologicalHealth
OtherSymptoms	PhysicalSymptoms		PhysicalHealth
Pain	PhysicalSymptoms		PhysicalHealth
PersonalRelationship			SocialRelationship
PhysicalEnvironment			Environment
PhysicalSymptoms			PhysicalHealth
PositiveFeeling			PsychologicalHealth
Rehabilitation			Environment
Religion			PersonalValuesAndBeliefs
RespiratoryIllness			PhysicalHealth
RespiratoryIllnessSymptoms	PhysicalSymptoms		PhysicalHealth
Rest			PhysicalHealth
SocialActivity			SocialRelationship
SocialCare			Environment
Spirituality			PersonalValuesAndBeliefs
Treatment			LevelOfIndependence
WorkCapacity			LevelOfIndependence
AccessToGreenSpace	PhysicalEnvironment		Environment
Accessibility	WorkCapacity		LevelOfIndependence
AccessibilityOfSocial	SocialCare		Environment
Aching	Pain	PhysicalSymptoms	PhysicalHealth
AcutePain	Pain	PhysicalSymptoms	PhysicalHealth
AddressingMinorAilments	MedicalSelfCare		LevelOfIndependence
Alcohol	Behaviour		PhysicalHealth
Anger	NegativeFeeling		PsychologicalHealth
Anxiety	NegativeFeeling		PsychologicalHealth
Appearance	BodyImage		PsychologicalHealth
AppetiteLoss	OtherSymptoms	PhysicalSymptoms	PhysicalHealth
Apprehension	NegativeFeeling		PsychologicalHealth
Asthma	RespiratoryIllness		PhysicalHealth
Bathing	DailyLiving		LevelOfIndependence
Belief	Spirituality		PersonalValuesAndBeliefs
BowelIssues	OtherSymptoms	PhysicalSymptoms	PhysicalHealth
BreathlessNess	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Bronchitis	RespiratoryIllness		PhysicalHealth
Buddhism	Religion		PersonalValuesAndBeliefs
CareInformation	AcquiringInformation		Environment
CarePlan	Legalissue		LevelOfIndependence
Caregiver	PersonalRelationship		SocialRelationship
CaregiverAssistance	DailyLiving		LevelOfIndependence
ChestPain	RespiratoryIllness		PhysicalHealth
Child	PersonalRelationship		SocialRelationship
Christian	Religion		PersonalValuesAndBeliefs
ChronicPain	Pain	PhysicalSymptoms	PhysicalHealth
Church	Religion		PersonalValuesAndBeliefs
Climate	PhysicalEnvironment		Environment
Community	SocialActivity		SocialRelationship
ComplexMedication	Treatment		LevelOfIndependence
Concentration	CognitiveFunction		PsychologicalHealth
Cough	RespiratoryIllness		PhysicalHealth
Cough	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Covid	RespiratoryIllness		PhysicalHealth
CulturalFactors	SocialActivity		SocialRelationship
Dad	PersonalRelationship		SocialRelationship
Depression	NegativeFeeling		PsychologicalHealth
Determination	PositiveFeeling		PsychologicalHealth
Diarrhea	OtherSymptoms	PhysicalSymptoms	PhysicalHealth
Digestion	Diet	Behaviour	PhysicalHealth
Dirt	PhysicalEnvironment		Environment
DisableAccess	Mobility		LevelOfIndependence
Discomfort	Pain	PhysicalSymptoms	PhysicalHealth
Drowsiness	OtherSymptoms	PhysicalSymptoms	PhysicalHealth
Drug	Behaviour		PhysicalHealth
Dyspnea	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Education	EconomicStatus		Environment
EndOfLifeCare	Legalissue		LevelOfIndependence
Endurance	Energy		PhysicalHealth
EquipmentCost	Financialissue		LevelOfIndependence
Excitement	PositiveFeeling		PsychologicalHealth
Exercise	Rehabilitation		Environment
Existentiality	Spirituality		PersonalValuesAndBeliefs
Family	PersonalRelationship		SocialRelationship
Fatigue	Energy		PhysicalHealth
Fear	NegativeFeeling		PsychologicalHealth
Fever	OtherSymptoms	PhysicalSymptoms	PhysicalHealth
FinancialSchemes	Financialissue		LevelOfIndependence
Flexibility	Energy		PhysicalHealth
FlexibleWorking	WorkCapacity		LevelOfIndependence
Fluidintake	Diet	Behaviour	PhysicalHealth
FoodPreparation	DailyLiving		LevelOfIndependence
Friend	PersonalRelationship		SocialRelationship
FuneralPlan	Legalissue		LevelOfIndependence
Furious	NegativeFeeling		PsychologicalHealth
Glad	PositiveFeeling		PsychologicalHealth
Grandchild	PersonalRelationship		SocialRelationship
Grief	NegativeFeeling		PsychologicalHealth
Guilt	NegativeFeeling		PsychologicalHealth
Gym	Rehabilitation		Environment
Heartbroken	NegativeFeeling		PsychologicalHealth
Hinduism	Religion		PersonalValuesAndBeliefs
Hope	PositiveFeeling		PsychologicalHealth
Hopelessness	NegativeFeeling		PsychologicalHealth
Humorous	PositiveFeeling		PsychologicalHealth
Husband	PersonalRelationship		SocialRelationship
Hypochondriac	NegativeFeeling		PsychologicalHealth
Income	EconomicStatus		Environment
Inheritance	Legalissue		LevelOfIndependence
Injuries	MedicalSelfCare		LevelOfIndependence
Insomnia	Rest		PhysicalHealth
Insurance	Legalissue		LevelOfIndependence
Irritability	NegativeFeeling		PsychologicalHealth
Jewish	Religion		PersonalValuesAndBeliefs
LanguageDifficulty	SocialActivity		SocialRelationship
Learning	CognitiveFunction		PsychologicalHealth
Leisure	Rehabilitation		Environment

Derivative Algorithm Tracing

(Note: we have added the duration to the segment characterisation to be added as part of the video narratives augmentation text.)

j	i	c	PC[j][0]	PC[j][1]	p	LAgg[i][2]	Lp	Lc	Duration (Lp)	Duration (Lc)
0	0	**Exercise**			→		[]	[]		[]
0 Loop						**j < length (PC)**				
89 Loop		Exercise								
		Exercise	Rehabilitation		**Rehabilitation**					
212					**End of j While loop**					
					i While loop					
0 Loop										
33 Loop						AggCtxV[4][3][0]=Exercise				
		Exercise			Rehabilitation			[uJc Y4oMLXEY5, 1.38, 2.15, 37, [Exercise], [Environment]]		
61		Exercise			Rehabilitation	AggCtxV[4][3][0]=Exercise				
Loop								[[uJc Y4oMLXEY5, 1.38, 2.15, 37, [Exercise], [Environment]], [VvSgJ12bPsn, 0.59, 2.2, 81, [Exercise], [Environment]]]		
81		Exercise			Rehabilitation	AggCtxV[4][3][0]=Rehabilitation				
Loop							[aHABVZDxnk10, 2.58, 3.39, 41, [Treatment], Rehabilitation], [LevelOfIndependence, Environment]]			
86		Exercise			Rehabilitation	AggCtxV[4][3][0]=Exercise				
Loop								[[uJc Y4oMLXEY5, 1.38, 2.15, 37, [Exercise], [Environment]], [VvSgJ12bPsn, 0.59, 2.2, 81, [Exercise], [Environment]], [GV3Rewq6G1FA, 1.31, 5.07, 216, [Exercise], [Environment]]]		
166		**End of i while loop**								

Output: Derivative Video Narrative (D)

Data: List of the aggregated video segments $LAgg$, which is the output of Algorithm 3 where each segment has: its information at position 0, the list of the Focus Topics at position 1, the list of the Focus Concepts at position 2. List of taxonomy concepts' paths PC /* *Each concept c from the taxonomy is represented with a list of concepts where c is the first concept and the remaining concepts are its parents* */. The specific concept to be learnt c.

Result: D: List of video segments to learn the specific concept c by introducing first video segment focusing on its parent concept p.

$D = []$; $i = 0$; $j = 0$; $p = ''$ /* *Variable to get the name of the parent of the concept c* */
$\theta = 6$ /* *Set 6 minutes as a max segment duration* */
$Lp = []$ /* *List of the segments that have the parent concept p of a concept c as the focus concept in their characterisation* */
$Lc = []$ /* *List of the segments that have the specific concept c as the focus concept in their characterisation* */
while $j < length(PC)$ **do**
  /* *Finding the path in PC for the concept c* */
  if $PC[j][0] = c$ **then**
    $p := PC[j][1]$; /* *Find the immediate parent concept p which is at position 1 in the path of the concept c* */
    $j = j + 1$;
while $i < length(LAgg)$ **do**
  /* *Find the characterised video segment where its second element includes p; otherwise check if the second element includes c* */
  if $p \in LAgg[i][2]$ **then**
    $Lp.append(LAgg[i])$;
  else if $c \in LAgg[i][2]$ **then**
    $Lc.append(LAgg[i])$
  $i = i + 1$;
while $i < length(LAgg)$ **do**
  /* *Find the characterised video segment where its second element includes p; otherwise check if the second element includes c* */
  if $p \in LAgg[i][2]$ **then**
    $Lp.append(LAgg[i])$;
  else if $c \in LAgg[i][2]$ **then**
    $Lc.append(LAgg[i])$
  $i = i + 1$;
while $i < length(LAgg)$ **do**
  /* *Find the characterised video segment where its second element includes p; otherwise check if the second element includes c* */
  if $p \in LAgg[i][2]$ **then**
    $Lp.append(LAgg[i])$;
  else if $c \in LAgg[i][2]$ **then**
    $Lc.append(LAgg[i])$
  $i = i + 1$;
while $i < length(LAgg)$ **do**
  /* *Find the characterised video segment where its second element includes p; otherwise check if the second element includes c* */
  if $p \in LAgg[i][2]$ **then**
    $Lp.append(LAgg[i])$;
  else if $c \in LAgg[i][2]$ **then**
    $Lc.append(LAgg[i])$
  $i = i + 1$;
while $i < length(LAgg)$ **do**
  /* *Find the characterised video segment where its second element includes p; otherwise check if the second element includes c* */
  if $p \in LAgg[i][2]$ **then**
    $Lp.append(LAgg[i])$;
  else if $c \in LAgg[i][2]$ **then**
    $Lc.append(LAgg[i])$
  $i = i + 1$;
/* *Ensure the duration of the collected segments does not exceed θ* */
$i = 0$; $duratiosp = 0$ /* *Save the duration of the segments that have P in their Focus Concept FC* */
while $i < length(Lp)$ **do**
  $duratiosp = duratiosp + (Lp[i][0][2] - Lp[i][0][1])$; $i = i + 1$;
$i = 0$; $duratioc = 0$ /* *Save the duration of the segments that have c in their Focus Concept FC* */
while $i < length(Lc)$ **do**
  $duratioc = duratioc + (Lc[i][0][2] - Lc[i][0][1])$; $i = i + 1$;
if $duratiosp + duratioc <= \theta$ **then**
  /* *If the duration of the collected segments is $\leq \theta$, save these segments in the list of the video segments for the Derivative narrative D* */
  $D.append(Lp)$; $D.append(Lc)$;
else
  /* *If the duration of the selected segments is $> \theta$, split the time $\theta = \theta/2$ between the two groups of the collected segments, Lp and Lc* */
  $\theta = \theta/2$; $i = 0$; $duratio = 0$; $someLc = []$; $someLp = []$ /* *The lists $someLp$ and $someLc$ include some of the segments from the Lp and Lc lists, respectively* */
  while $i < length(Lp)$ **do**
    if $duratio \leq \theta$ **then**
      $someLp.append(Lp[i])$;
      $duratio = duratio + (Lp[i][0][2] - Lp[i][0][1])$;
    $i = i + 1$;
  $i = 0$; $duratio = 0$;
  while $i < length(Lc)$ **do**
    if $duratio \leq \theta$ **then**
      $someLc.append(Lc[i])$;
      $duratio = duratio + (Lc[i][0][2] - Lc[i][0][1])$;
    $i = i + 1$;
$D.append(someLp)$; $D.append(someLc)$;
Return D

137+81=216

41+137+81=216)

[[aHABVZDxnk10, 2.58, 3.39, 41, [**Rehabilitation**], [Environment]], [uJc Y4oMLXEY5, 1.38, 2.15, 37, [**Exercise**], [Environment]], [VvSgJ12bPsn, 0.59, 2.2, 81, [**Exercise**], [Environment]], [GV3Rewq6G1FA, 1.31, 5.07, 216, [**Exercise**], [Environment] !]

123	2utaxqgzGuk11	3.22	4.09	47	Thinking	PsychologicalHealth					
124	2utaxqgzGuk14	4.11	4.53	42	Family, Friend	SocialRelationship					
125	2utaxqgzGuk18	5.34	5.43	9	Thinking	PsychologicalHealth					
126	pmuLnQ52I4Q1	0.05	0.57	52	LungCancer, Pain	PhysicalHealth	Mom	SocialRelationship			
127	pmuLnQ52I4Q4	1	1.52	52	Energy	PhysicalHealth					
128	pmuLnQ52I4Q7	1.56	2.51	55	Husband	SocialRelationship	LungCancer	PhysicalHealth			
129	dyRmGlgG7_R4	0.47	1.17	30	Copd	PhysicalHealth					
130	dyRmGlgG7_R6	1.19	2.17	58	LungCancer, Drug	PhysicalHealth					
131	dyRmGlgG7_R9	2.2	3.02	42	Gym	Environment	Treatment	LevelOfIndependence	Thinking	PsychologicalHealth	
132	zREqsWoX-EY1	0.05	1	55	Wife	SocialRelationship	LungCancer	PhysicalHealth			
133	zREqsWoX-EY8	2.2	3.04	44	Family	SocialRelationship					
134	9nRkehMpDDb3	0.39	1.3	51	Hope	PsychologicalHealth	Treatment	LevelOfIndependence	Pain	PhysicalHealth	
135	9nRkehMpDDb8	2.11	2.59	48	Hope	PsychologicalHealth					
136	Tyo2YvAD9I1	0.05	0.38	33	Treatment	LevelOfIndependence	LungCancer	PhysicalHealth			
137	Tyo2YvAD9I2	0.43	1.19	36	Hope	PsychologicalHealth					
138	Tyo2YvAD9I3	1.25	2.49	84	Energy	PhysicalHealth	Treatment	LevelOfIndependence			
139	Tyo2YvAD9I5	2.52	3.51	59	LungCancer	PhysicalHealth	Family	SocialRelationship	Fear, Hope	PsychologicalHealth	
140	2ctEIgL6L-mB1	0.11	1.02	51	Energy, LungCancer, Strength	PhysicalHealth					
141	2ctEIgL6L-mB5	1.47	2.35	48	Treatment	LevelOfIndependence					
142	2ctEIgL6L-mB7	2.39	3.29	50	Exercise	Environment					
143	2ctEIgL6L-mB9	3.31	4.54	83	Child	SocialRelationship	Thinking	PsychologicalHealth			
144	iYi7anDHraJ-1	0.03	1.34	91	PulmonaryFibrosis, Cough	PhysicalHealth	Mobility	LevelOfIndependence			
145	iYi7anDHraJ-7	1.36	2.06	30	Exercise	Environment					
146	iYi7anDHraJ-9	2.08	2.57	49	Wife	SocialRelationship					
147	iYi7anDHraJ-14	3.35	4.22	47	Exercise	Environment					
148	iYi7anDHraJ-17	4.24	4.45	21	Family	SocialRelationship	Rest	PhysicalHealth			
149	cfyb39S_CZw1	0.06	1.19	72	LungCancer, Smoking	PhysicalHealth					
150	cfyb39S_CZw5	1.2	2.05	45	Hope, Scared	PsychologicalHealth	Wife	SocialRelationship			
151	cfyb39S_CZw7	2.07	2.4	33	LungCancer	PhysicalHealth	Grandchild	SocialRelationship			
152	m5Y8dEFvHe-1	0.03	0.5	47	LungDisease	PhysicalHealth	Exercise, Training	Environment	Family	SocialRelationship	
153	m5Y8dEFvHe-4	0.52	1.28	36	Belief	PersonalValuesAndBeliefs	Hope	PsychologicalHealth			
154	3239nDRG0OM1	0.02	0.37	35	Smoking	PhysicalHealth					
155	3239nDRG0OM3	0.4	1.57	77	Tumor	PhysicalHealth					
156	3239nDRG0OM9	2.19	2.31	12	LungCancer	PhysicalHealth	Treatment	LevelOfIndependence			
157	LYwQBM-2ob41	0	2.27	147	LungCancer	PhysicalHealth					
158	LYwQBM-2ob49	2.32	3.08	36	Tumor, Drug, Pain	PhysicalHealth					
159	LYwQBM-2ob411	3.12	3.26	14	Insurance	LevelOfIndependence					
160	bqkqzNbSZBA1	0.03	0.41	38	Pain	PhysicalHealth					
161	bqkqzNbSZBA10	2.47	3.31	44	Drug	PhysicalHealth					
162	bqkqzNbSZBA13	3.33	4.04	31	Pain	PhysicalHealth					
163	qoAnVBDU3cc1	0	0.42	42	PulmonaryFibrosis	PhysicalHealth					
164	qoAnVBDU3cc4	0.47	1.31	44	Family	SocialRelationship					
165	2ppHkvmRSWB1	0.08	1.16	68							
166	2ppHkvmRSWB6	1.38	2.24	46	Friend	SocialRelationship					
167	2ppHkvmRSWB12	3.19	3.53	34	LungDisease	PhysicalHealth					

LossOfIncome	FinancialIssue		LevelOfIndependence
LossOfInterest	NegativeFeeling		PsychologicalHealth
LossOfPleasure	NegativeFeeling		PsychologicalHealth
Loving	PositiveFeeling		PsychologicalHealth
LoweringOfMood	NegativeFeeling		PsychologicalHealth
LungCancer	RespiratoryIllness		PhysicalHealth
LungDisease	RespiratoryIllness		PhysicalHealth
MedicalAid	Treatment		LevelOfIndependence
MedicalInformation	AcquiringInformation		Environment
MedicineCost	FinancialIssue		LevelOfIndependence
MedicineIntake	Treatment		LevelOfIndependence
Meditation	Spirituality		PersonalValuesAndBeliefs
Memory	CognitiveFunction		PsychologicalHealth
MentalHealth	CognitiveFunction		PsychologicalHealth
Mindfulness	Spirituality		PersonalValuesAndBeliefs
MobilityAid	Mobility		LevelOfIndependence
Mom	PersonalRelationship		SocialRelationship
Moose	Religion		PersonalValuesAndBeliefs
Mould	PhysicalEnvironment		Environment
Mum	PersonalRelationship		SocialRelationship
Muslim	Religion		PersonalValuesAndBeliefs
Nausea	OtherSymptoms	PhysicalSymptoms	PhysicalHealth
Nervousness	NegativeFeeling		PsychologicalHealth
Noise	PhysicalEnvironment		Environment
NutrientIntake	Diet	Behaviour	PhysicalHealth
Occupation	EconomicStatus		Environment
Oedema	OtherSymptoms	PhysicalSymptoms	PhysicalHealth
Optimism	PositiveFeeling		PsychologicalHealth
OrganDonation	LegalIssue		LevelOfIndependence
Parents	PersonalRelationship		SocialRelationship
Parks	PhysicalEnvironment		Environment
PartTime	WorkCapacity		LevelOfIndependence
PeriodicBeet	Rest		PhysicalHealth
Pleased	PositiveFeeling		PsychologicalHealth
Pneumonia	RespiratoryIllness		PhysicalHealth
Pollution	PhysicalEnvironment		Environment
Pray	Religion		PersonalValuesAndBeliefs
PulmonaryFibrosis	RespiratoryIllness		PhysicalHealth
PulmonaryHypertension	RespiratoryIllness		PhysicalHealth
Pulmonary_Rehab	Treatment		LevelOfIndependence
QualityOfSocialCare	SocialCare		Environment
Recreation	Rehabilitation		Environment
Redundancy	WorkCapacity		LevelOfIndependence
Relative	PersonalRelationship		SocialRelationship
Relaxation	Rest		PhysicalHealth
ReligiousCelebration	Religion		PersonalValuesAndBeliefs
Remembering	CognitiveFunction		PsychologicalHealth
RunnyNose	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Sadness	NegativeFeeling		PsychologicalHealth
Safety	PhysicalEnvironment		Environment
Satisfied	PositiveFeeling		PsychologicalHealth
Scared	NegativeFeeling		PsychologicalHealth
Security	PhysicalEnvironment		Environment
SeekingEmergencyCare	MedicalSelfCare		LevelOfIndependence
SelfEsteem	BodyImage		PsychologicalHealth
SenseOfIsolation	NegativeFeeling		PsychologicalHealth
SexualActivity	SocialActivity		SocialRelationship
ShortnessOfBreath	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Showering	DailyLiving		LevelOfIndependence
Sleep	Rest		PhysicalHealth
Smoking	Behaviour		PhysicalHealth
Sneezing	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
SocioEconomically Disadvantaged	FinancialIssue		LevelOfIndependence
SoreThroat	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Soreness	Pain	PhysicalSymptoms	PhysicalHealth
SpiritualResources	Spirituality		PersonalValuesAndBeliefs
SpiritualServices	Spirituality		PersonalValuesAndBeliefs
Spouse	PersonalRelationship		SocialRelationship
Strength	Energy		PhysicalHealth
SwollenLymphNodes	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Tearfulness	NegativeFeeling		PsychologicalHealth
Temple	Religion		PersonalValuesAndBeliefs
Tension	NegativeFeeling		PsychologicalHealth
Thinking	CognitiveFunction		PsychologicalHealth
TightChest	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Toileting	DailyLiving		LevelOfIndependence
Toxins	PhysicalEnvironment		Environment
Traffic	PhysicalEnvironment		Environment
Training	AcquiringInformation		Environment
Transport	PhysicalEnvironment		Environment
TravelExpenses	FinancialIssue		LevelOfIndependence
TreatmentCost	FinancialIssue		LevelOfIndependence
Tumor	RespiratoryIllness		PhysicalHealth
Value	Spirituality		PersonalValuesAndBeliefs
Vaping	Behaviour		PhysicalHealth
Wheezing	RespiratoryIllnessSymptoms	PhysicalSymptoms	PhysicalHealth
Wife	PersonalRelationship		SocialRelationship
Will	LegalIssue		LevelOfIndependence
Workload	WorkCapacity		LevelOfIndependence