

Table 1: Ablation Study of without Augmentation Strategy on Node and Graph Classification

Methods	Node Classification		Graph Classification	
Datasets	PROTEINS (5-shots)	ENZYMES (5-shots)	PROTEINS (5-shots)	ENZYMES (5-shots)
RAGRAPN/NF wo AUG	39.62±09.24	47.73±08.79	53.92±09.44	24.61±07.61
RAGRAPN/FT wo AUG	48.51±11.38	59.26±14.38	56.80±07.26	25.95±06.20
RAGRAPN/NFT wo AUG	51.08±10.31	63.44±11.80	58.25±08.91	26.33±05.25

Table 2: Ablation Study without Inverse Importance Sampling on Node and Graph Classification

Methods	Node Classification		Graph Classification	
Datasets	PROTEINS (5-shots)	ENZYMES (5-shots)	PROTEINS (5-shots)	ENZYMES (5-shots)
RAGRAPN/NF wo IIS	39.29 ± 06.02	43.37 ± 09.26	48.33 ± 09.12	25.01 ± 06.23
RAGRAPN/FT wo IIS	49.86 ± 12.30	56.93 ± 12.09	49.89 ± 10.11	25.37 ± 08.33
RAGRAPN/NFT wo IIS	50.33 ± 08.31	61.40 ± 09.32	57.24 ± 11.41	26.12 ± 09.28

Table 3: Ablation Performance without Any One of the Four Similarities on Node, Graph Classification, and Link Prediction

Methods	PROTEINS (5-shots)		ENZYMES (5-shots)		TAOBAO		AMAZON	
	Node Level	Node Level	Graph Level	Graph Level	Recall	nDCG	Recall	nDCG
RAGRAPN/NF	40.27±08.82	48.41±09.84	55.16±08.86	25.83±05.28	22.13±01.08	21.40±01.04	18.11±03.19	05.94±02.05
RAGRAPN/NF wo Time	-	-	-	-	21.82±01.95	20.98±01.08	17.74±04.32	05.08±02.03
RAGRAPN/NF wo Structure	35.33±02.46	42.96±05.20	51.45±04.91	23.01±04.73	22.08±01.29	21.30±01.22	18.01±03.12	05.89±02.06
RAGRAPN/NF wo Environment	38.92±06.05	48.03±08.33	54.17±05.32	25.29±05.68	21.45±01.04	20.86±01.47	17.96±02.38	05.62±02.14
RAGRAPN/NF wo Semantic	37.46±06.25	47.18±08.93	54.02±06.82	24.79±05.42	21.87±01.52	21.07±01.29	17.88±02.89	05.80±02.31

Table 4: Ablation Study about the Fusion Step on Node and Graph Classification

Methods	PROTEINS (5-shots)	ENZYMES (5-shots)	PROTEINS (5-shots)	ENZYMES (5-shots)
RAGRAPN/NF w X	37.34±08.21	42.66±11.26	51.29±08.24	22.41±06.82
RAGRAPN/FT w X	44.09±07.99	55.49±15.80	55.43±09.51	24.88±06.92
RAGRAPN/NFT w X	50.87±08.52	61.07±12.38	56.08±07.46	25.26±05.39
RAGRAPN/NF w Y	49.86±04.22	59.88±08.61	55.33±04.21	24.09±02.36

Table 5: Zero Shot Testing Study on Node and Graph Classification

Methods	PROTEINS (5-shots)	ENZYMES (5-shots)	PROTEINS (5-shots)	ENZYMES (5-shots)
PRODIGY/FT + zero shot testing	43.26±12.18	52.81±13.94	53.77±11.82	23.46±06.54
RAGRAPN/FT + zero shot testing	48.63±09.02	57.43±12.82	56.29±08.46	26.32±05.43
RAGRAPN/NFT + zero shot testing	51.27±08.74	61.09±11.49	58.01±08.20	26.54±05.69

Table 6: Supplement Experimental Results (Accuracy) on More Datasets

Methods	OGBN-Arxiv	OGBN-MAG	Cora	ICEWS
BACKBONE	50.12	48.32	83.01	84.42
PRODIGY/NF	51.08	50.22	83.47	85.96
PRODIGY/FT	53.22	50.49	84.26	86.11
RAGRAPN/NF	52.64	50.94	85.47	87.50
RAGRAPN/FT	55.47	51.67	85.92	88.31
RAGRAPN/NFT	56.91	51.98	86.83	88.49

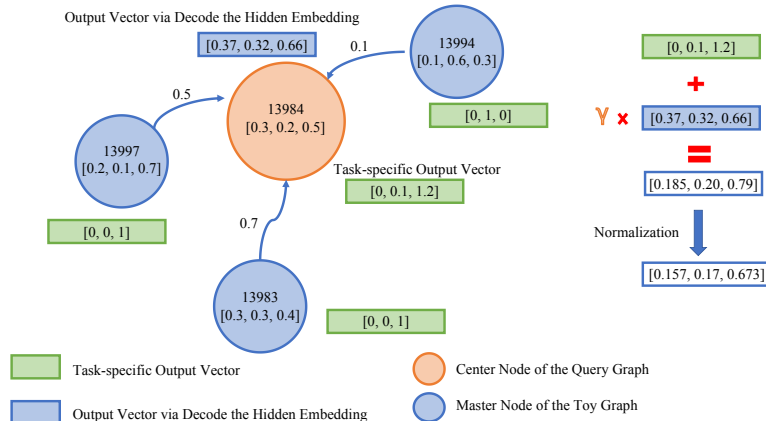


Figure 1: Qualitative analyses of toy graphs retrieving – how “generation” works.