Lexical trajectories and learning style

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Outline

- A definition of learning style
- Research questions
- Lexical richness: diversity vs. rarity
- Participants and texts
- Results: diversity and rarity against Memory and Analysis
- Conclusions

Skehan's representation of learning style

- Memory-orientated learners
  - Wide range of lexicalised exemplars
  - Highly accessible exemplars
  - May not value form so highly
- Analysis-orientated learners
  - Rule-based representation of the language
  - Language more open to restructuring
  - May value accuracy

Skehan's representation of learning style

High memory – low analysis

High memory –high analysis

Low memory – low analysis

Low memory –high analysis

Language aptitude/learning style and second language vocabulary

- early immersion students: positive correlation between memory (for text) and vocabulary recognition;

- late immersion students: positive correlations between language analysis and vocabulary recognition

Harley and Hart (1997)

Research questions

1. Are any patterns in lexical richness i.e. diversity or rarity trajectories related to strengths and weaknesses in Memory and Analysis?

2. Is productive lexical development a linear or non-linear trajectory over time?

Lexical richness: diversity

Diversity: a variety of different words rather than a limited number of words used repetitively.

Example: *The heat of the night.*

Type-Token ratio of 4 types/5 tokens = 0.8

Lexical richness: rarity

- **Rarity**: a selection of low-frequency words that are appropriate to the topic and style of writing.

Repetition but coherence in text

I am writing to express my extreme concern about the **article** published in the daily sun on the 11 of september 2007. This **article** described the standard at the kpd_school. I am an ex_student who visited the kpd_school last year. I am worried about the effect which your **article** will have on the reputation of the school. I appreciate the reason for writing this **article** but have you taken into account what consequences it will have. According to your **article** the tuitions are not well prepared and the teacher are not motivated.

Calculating the statistics: diversity (D_Tools) and rarity (P_Lex)

- D_Tools (Meara and Miralpeix 2007) is based on a type-token curve fitting statistic (parameter D).

- P_Lex (Meara (2007) distinguishes between high and low frequency words and produces a summary statistic (lambda).

Participants

- 12 second language learners of English who were enrolled in a private language school in London.

- All learners were post Cambridge First Certificate level grade C or above. All worked in an international Swiss bank.

- They were on an intensive language course designed to help them pass the Cambridge Advanced Exam.
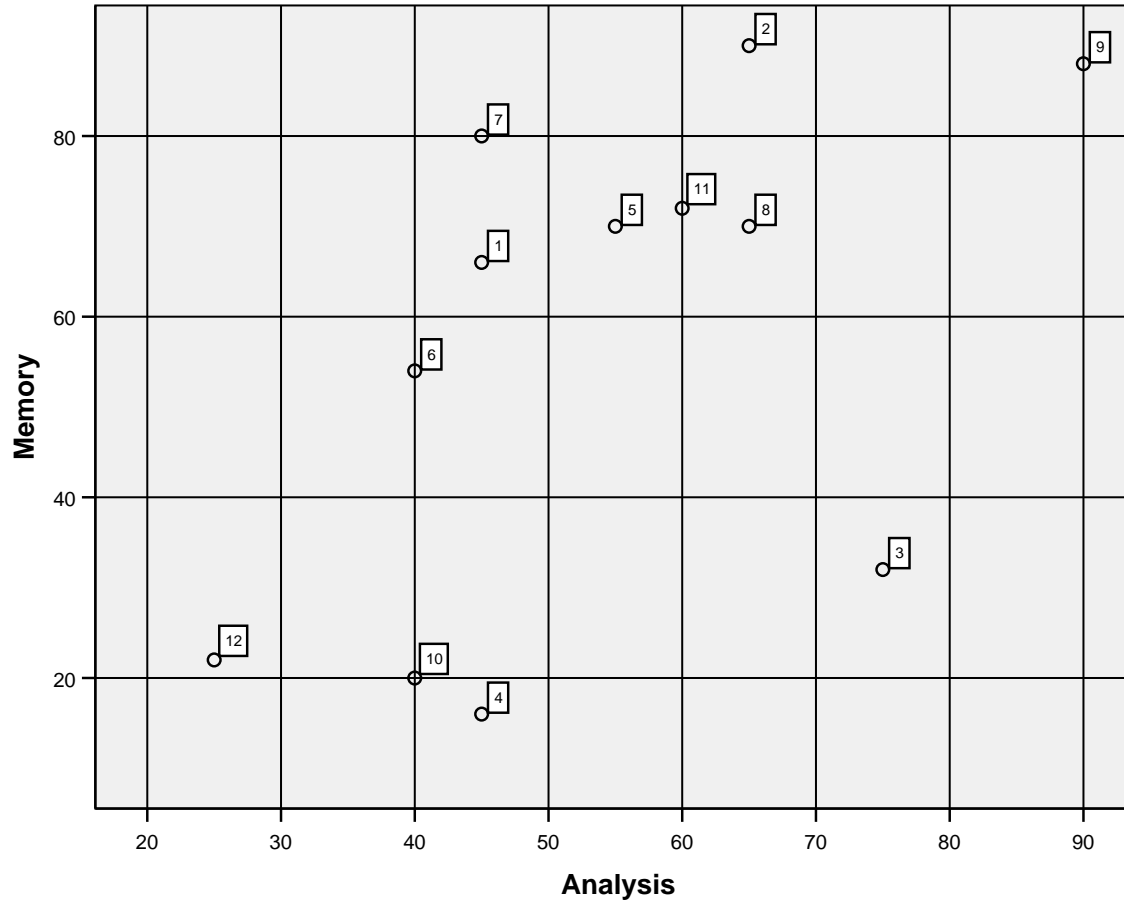
Texts analysed for productive vocabulary

- Text 1: A character reference for a job
- Text 2: A report (fund raising for a charity organisation)
- Text 3: A report (profit investment)
- Text 4: A letter recommending changes for a friendship club
- Text 5: A complaint letter to the editor

Tests of memory and analysis

- Language Aptitude Test (LAT) B Memory: tests your ability to remember pairs of words when they are displayed to you in writing.

- Language Aptitude Test C Analysis: tests your ability to find or infer rules from examples of a language you will not know.
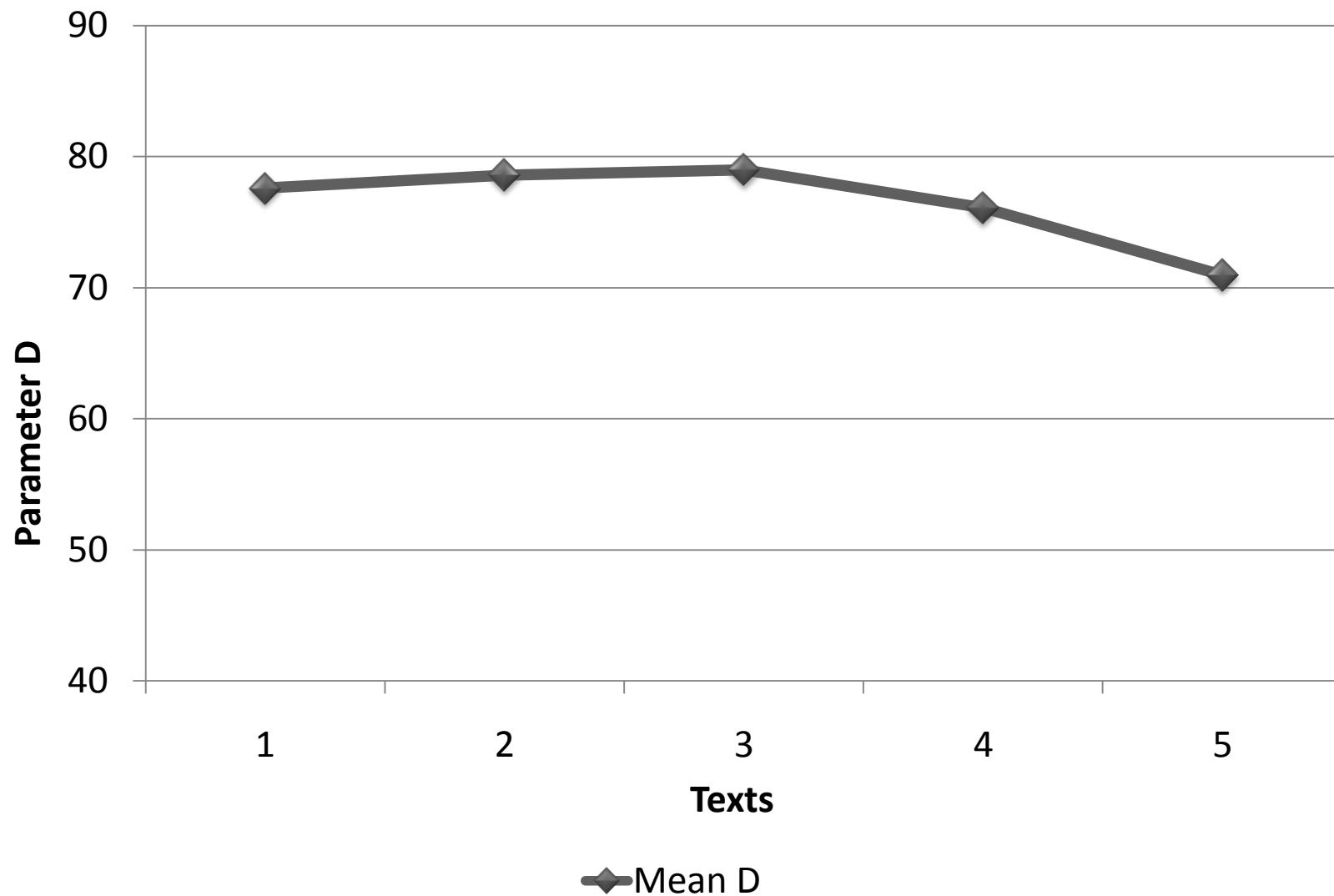
Memory (LAT B) and Analysis (LAT C) scores

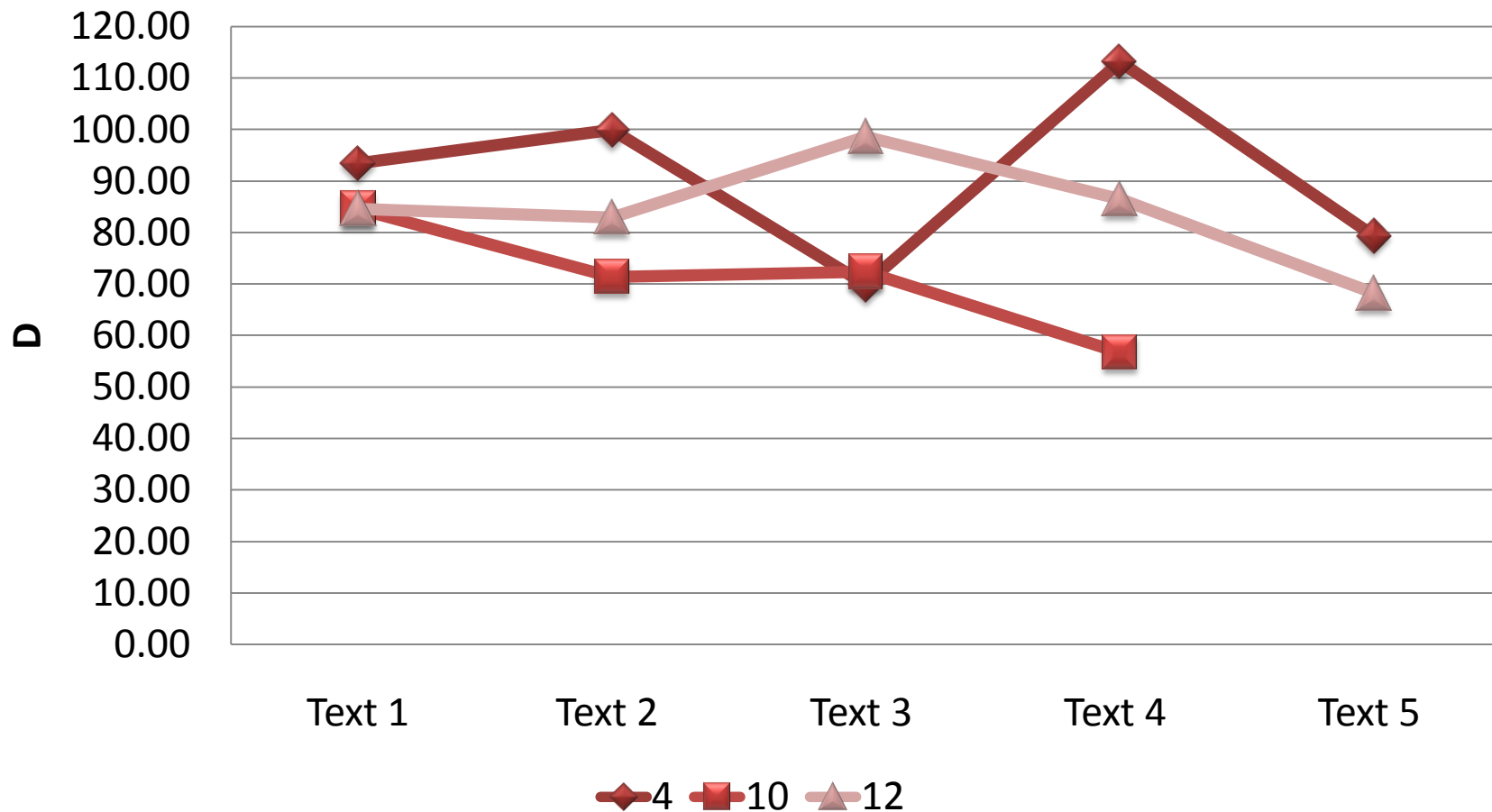# 3 groups: bottom memory and analysis, high memory, high analysis

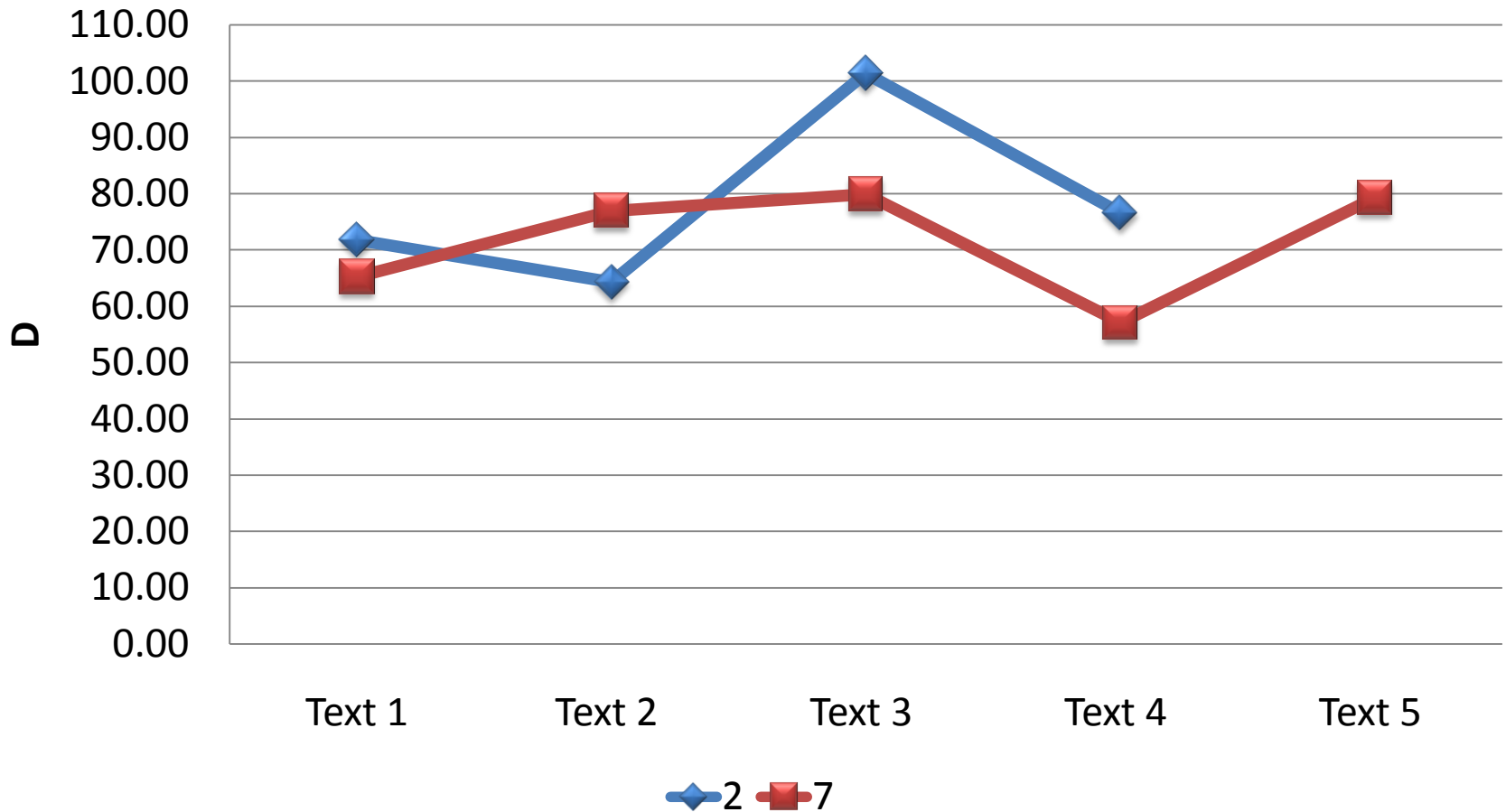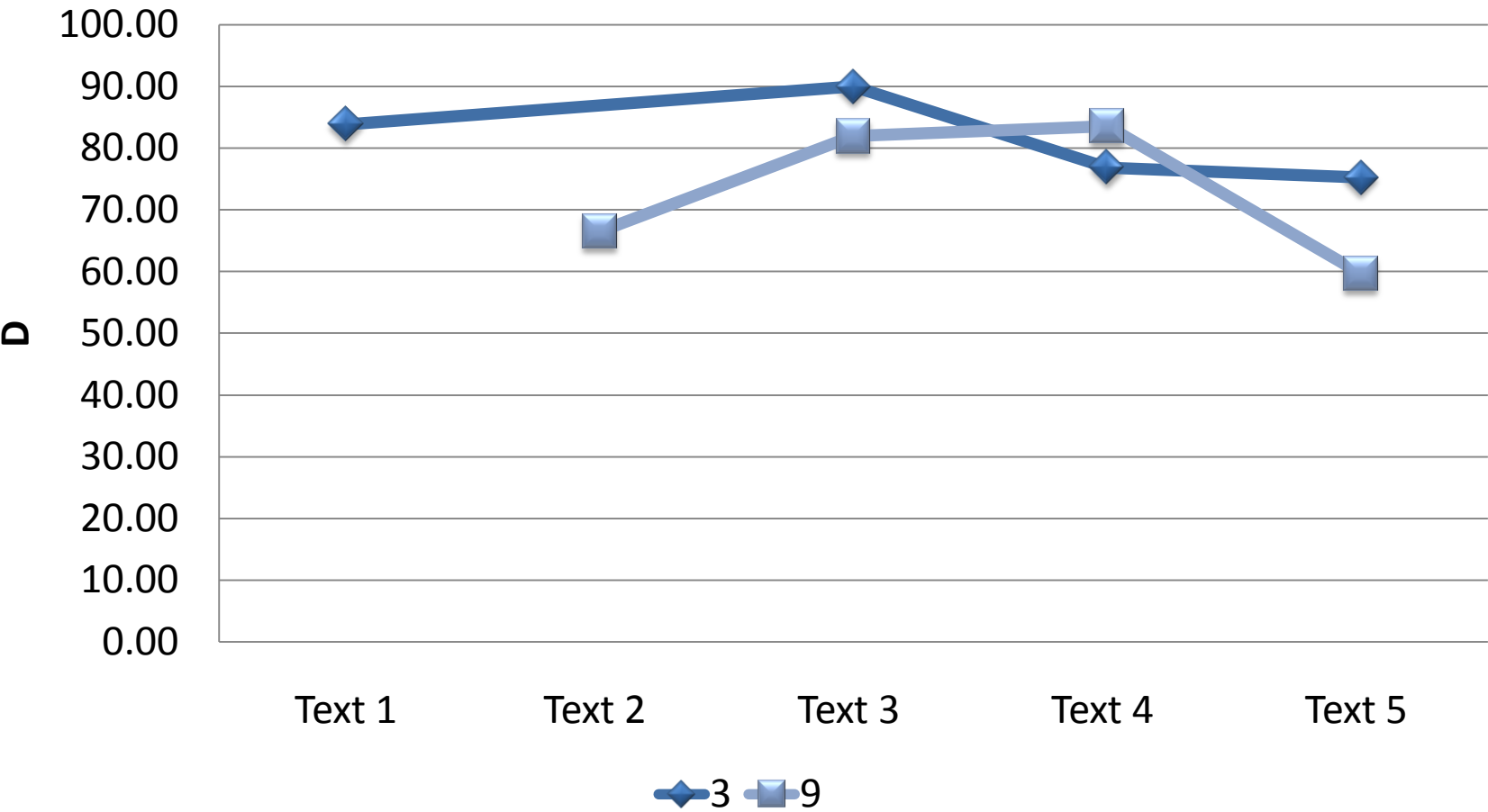| Participant	Memory	Analysis
4	16	45
10	20	40
12	22	25
2	90	65
7	80	45
3	32	75
9	88	90

Mean lexical diversity (D)

Lexical **diversity** (D) plotted against texts at **bottom** Memory and Analysis level
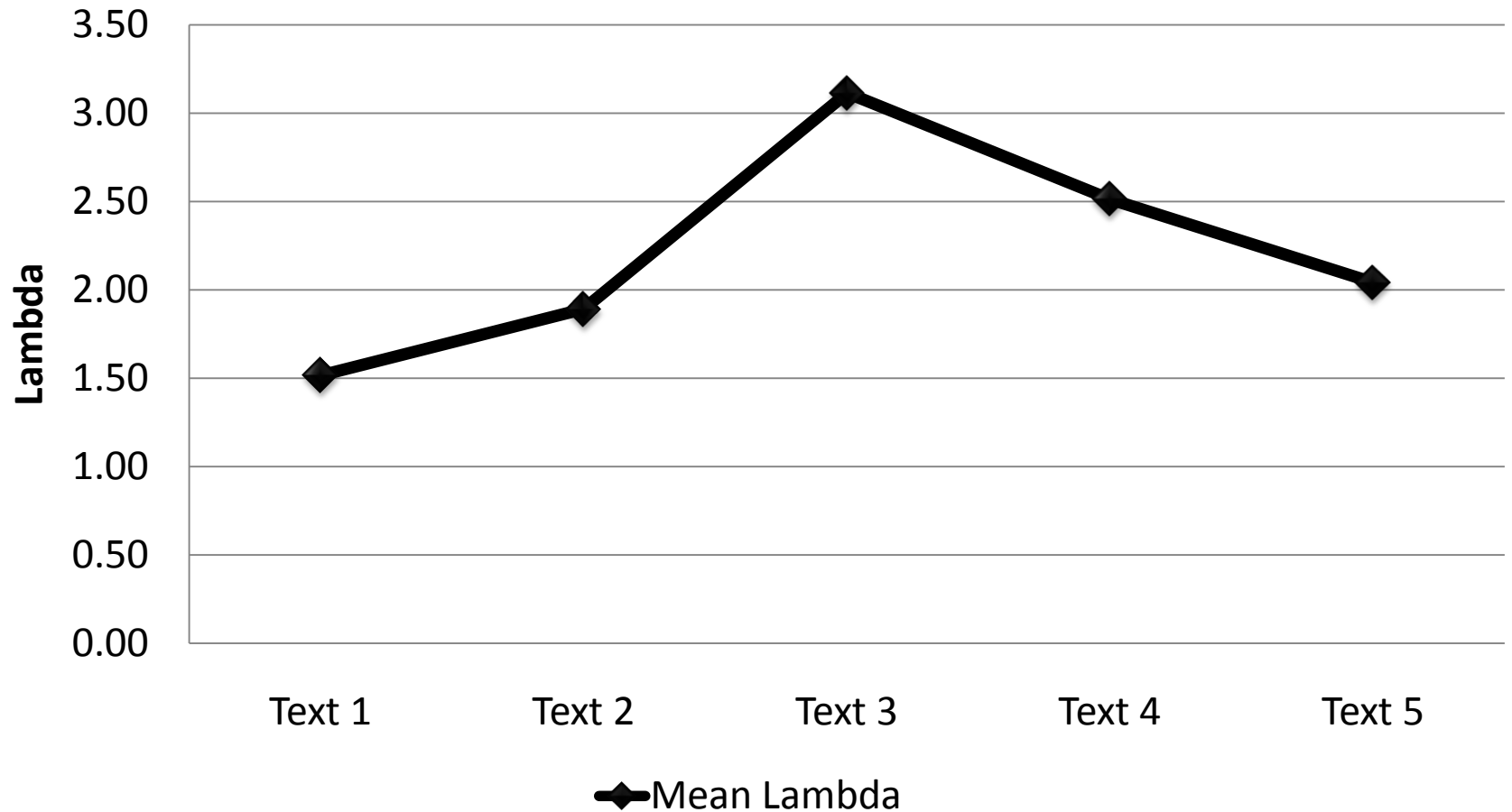
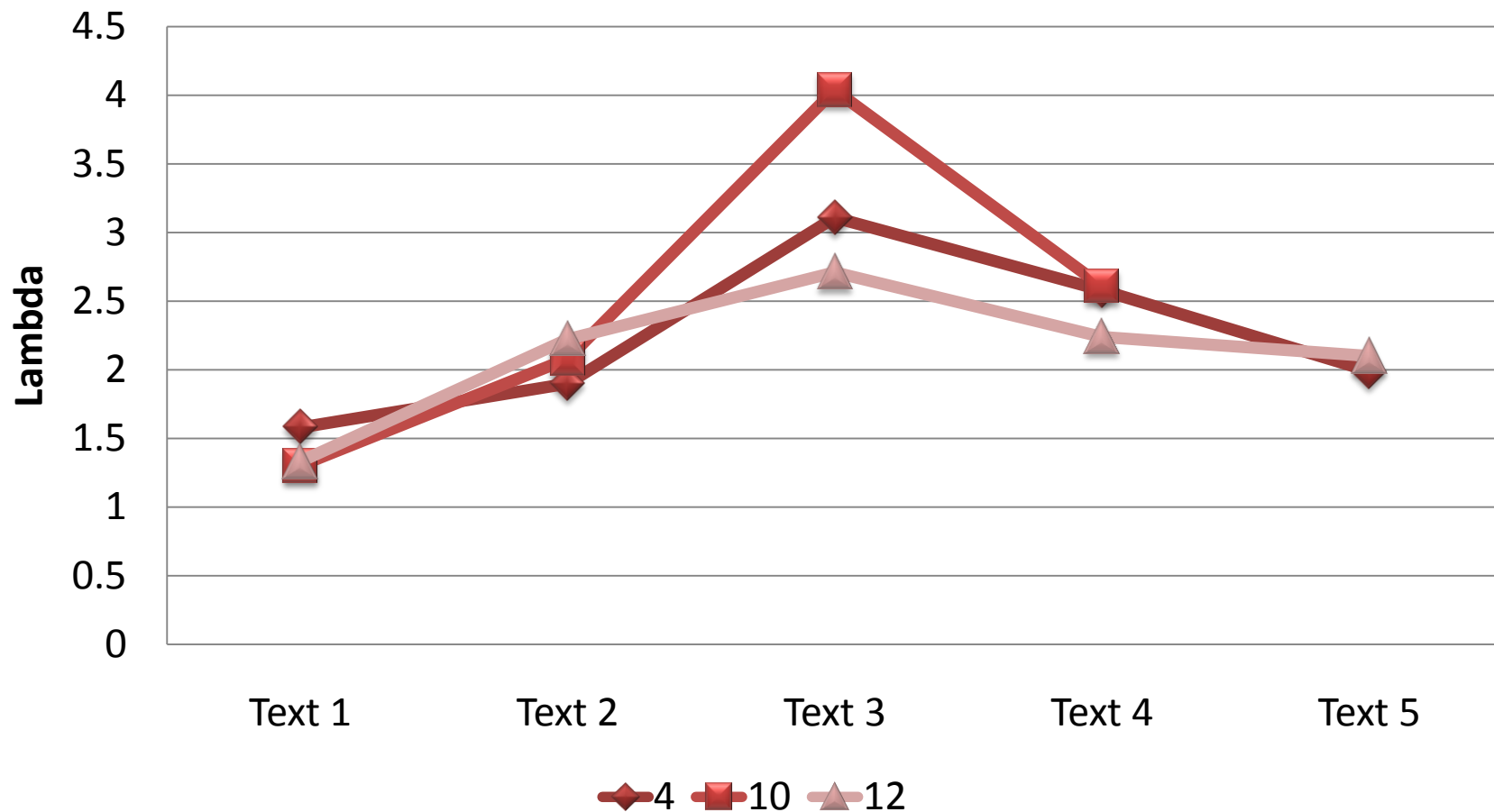# Lexical **diversity** plotted against texts at **high Memory** level

Lexical **diversity** plotted against texts at **high Analysis** level
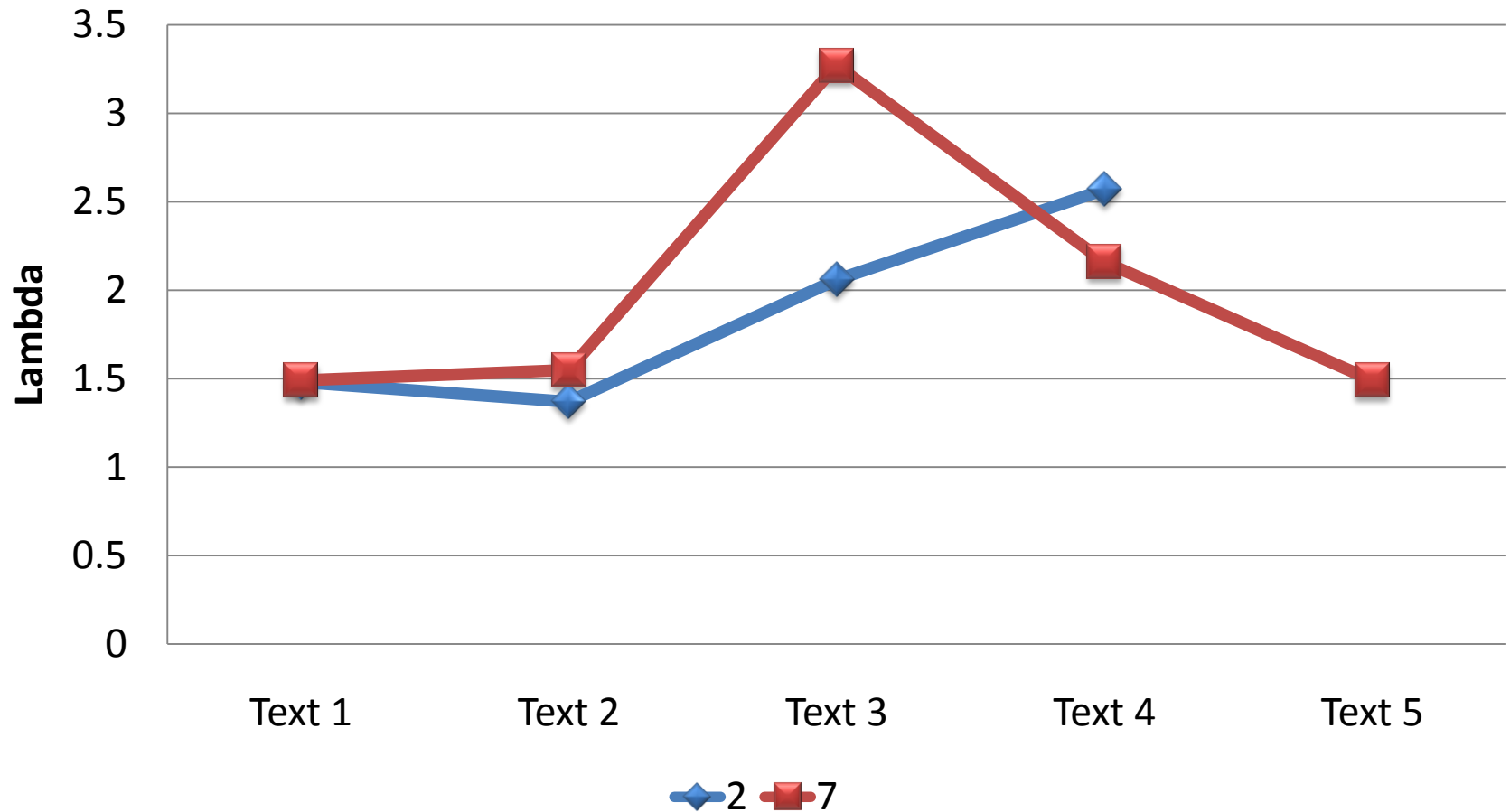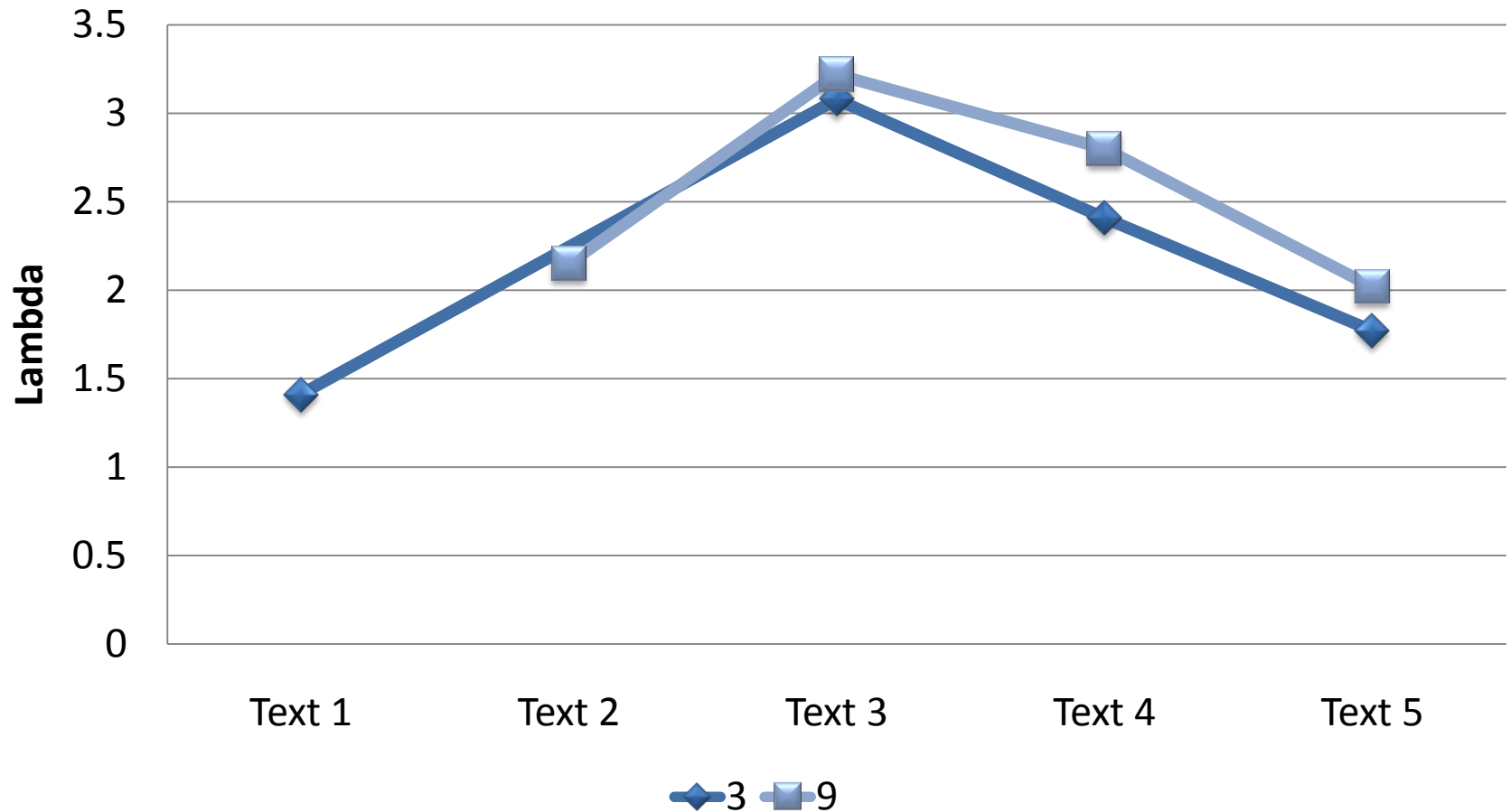
Mean lexical rarity (lambda)

Word **rarity** plotted against texts at **bottom** Memory and Analysis level

Word **rarity** plotted against texts at **high Memory** level

Word **rarity** plotted against texts at **high Analysis** level

High Memory low Analysis:
erratic diversity (D) and rarity profiles

Participant 7, text 3 (investment): high diversity (D) high rarity

the **aim** of this report is to determine in which of the following **options** we should **invest** the high profits of this year new **computers** language training courses special **bonus** payments new **computers** we **replaced** our **computers** one year ago on the whole it would appear that an **investment** in new **computers** would not have an **optimal** return language training courses language training courses are demanded in our company in particular our **client advisors** who works in wealth **management international** would **appreciate** to **participate** in language courses in fact a substantial number of **clients** who live **abroad** don speak English however these **clients** would **prefer** to have a **client advisor** who speak their language it concerns Russian and south American **clients** it appears that we can employ **skilled client advisors** who already speaks Russian or Spanish moreover learning a language takes a **considerable** amount of time in the near future we will not receive a substantial return from this **investment** special **bonus** payments it would appear that a everyone had a good year particularly other banks however in a successful **financial** year there is always a **significant** number in **staff turnover extraordinary bonuses** would **motivate** our employees and reduce **staff turnover recommendation** to **sum** up the special **bonus** payments would be the most **worthwhile investment** for our company in short we would be able to **retain** experienced employees and on the other hand we would take the first step to a successful **financial** year in number

Participant 7, text 4 (friendship club) Low D low rarity

I am writing to give you my and the other members **feedback** about the **international** friendship **club** we **extremely appreciate** being members of this open minded **club** but it is felt that there are still points we could **improve** we are concerned about the **steadily decreasing** number of new memberships it would be welcomed to be an **attractive club** for new members if we want to **achieve** this **goal** it would be necessary to over think our **programme** in fact it was felt that the meetings are not always **exciting** and interesting in addition it would be **appreciated** to have more variety in the **programme** in particular a few evenings outside the **club** such as a **barbecue** or a **sports tournament** would be much more **entertaining** the **beneficial** effect would be more **satisfied** members which would **invite** other friends to join the **club** and we would win new members the members always respected and **appreciated** the committees work and it is well known that there is much work behind however we would be glad if five of our young members would be given the opportunity to join the committee with this measure we would have committee members of all ages and as a result we would be able to **create synergies** because of the different ideas and opinions for our **programmes** it appears that the whole appearance of the **club** such as a **promotion** and the **clubroom** could be much better in fact the **clubroom** could be more colourful and the publicity more **attractive** there are some members which would **volunteer** to make it more eye **catchy** we hope that we have given you an **objective feedback** and are looking **forward** to hear from you

•   **Easy words**   **Hard words**

High Analysis: systematic diversity and rarity

Participant 9 text 3 (investment)

introduction the **principal aims** of this report are to give an **overview** of the different **areas** describe the advantages of **investing** in different **options recommend** how the amount of money should be **invested overview** this year the profit is **exceptionally** high our company has to decide how the amount of money should be **invested** there are three different **areas** which could be possible one of the following **options** will **obtain** the **investment** new **computers** language training courses or special **bonus** payment advantages of new **computers** in my view all the **aforementioned areas require** the **investment** however most departments desire new **computers** for their offices the old **computers** and **software** become **obsolete** firstly modern **flat screens** will save space and have a more **attractive** appearance secondly our **staff** will be more **motivated** and the productivity will **improve finally information** can be provided more **quickly** advantages of language training courses another possibility is to offer language training courses the following points **summarise** my **key** findings if our **colleagues** can speak a foreign language **fluently** they will be able to **communicate** with our **customers** in different languages these language **skills** will give us a serious advantage over the **competition** advantage of special **bonus** payments **finally** the third **option** is to **invest** the profit to make **bonus** payments i **convinced** that the **staff** will be pleased however we have to take into account the fact that this **option** is expensive than the first and second **option** what i concerned about is that our **staff** expect **bonus** payments every year **recommendations** it would be in our interest to **invest** in the first or second **option** in my opinion the profit should be **invested** in new **flat screens** and **software** this **area** has the most **benefits**

Participant 9 text 4 (friendship)

I am writing to express my concern about the **decreasing** number of members and to suggest different events for the October **programme** firstly it is felt that our meetings should be more **entertaining** the current meetings are quite **boring** and not **appropriate** to all age limits secondly it is found that the **clubroom** would **attract** more people if it had a more modern appearance we could provide free drinks and free **access** to **internet** the members have the **impression** that the **clubroom** is quite old **fashion** dark and small **finally** it seems that our **advertising campaign** could be **improved** the publicity for our friendship **club** is not **attractive** we should also take into account that the average age of committee is increasing new young people in the committee would have a **positive** effect on the **club** it is suggested that we should introduce a new **programme** with existing activities for the future we **discussed** several events such as going to a **nightclub** making a **barbecue** or organise **sports tournaments** these events would have a great **impact** on our **club atmosphere** for example making a **barbecue** we could meet in the garden of a new member and **grill** some **sausages** in the time you are waiting for your food you have the opportunity to learn some more about the other **club** members other proposals are organising **sports tournaments** or going to a **nightclub** both of them would **improve** the **communication** between the members and would **satisfy** them **thank** you for your time and consideration should you **require** more **information** please do not **hesitate** to **contact** me on my **mobile phone**

Easy words   **Hard words**

Conclusions

- **Analysis-orientated** learners are more likely to show similar patterns of lexical trajectories over time.
- **Processing**: This may reflect a bottom-up approach to language learning i.e. an attention to how language is constructed. Possibly a more systematic and predictable use of lexis.
- **Development**: Lexis may be more deeply analysed and so committed to long term memory.

- **Memory-orientated** learners tend to show greater variation in their trajectory pattern.
- **Processing**: This may reflect a top-down approach i.e. an attention to meaning rather than form of the language.
- **Development**: Lexis may be less likely to be analysed and so only committed to short-term memory but less likely to be committed to long-term memory .
- Learners may benefit from activities like dictogloss to focus learners' attention on gaps in their language knowledge and so encourage restructuring.

- **Task topic:** seems to influence lexical rarity but not diversity.

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