
Pleasure for independent reading: a proposal for its measurement

Placer por la lectura independiente: una propuesta para su medición

独立阅读的乐趣: 对其测量的建议

Удовольствие от самостоятельного чтения: предложение по его измерению

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Abstract

Several investigations corroborate the relationship between independent reading and academic performance; however, considering only that the higher the independent reading the higher the academic performance, it is a reductionist perspective. Analyzing the pleasure component that is implicit in independent reading allows us to problematize the relationship between student and reading object from the mediations that result in the construction of knowledge, empathy, creativity, and criticality; with which it becomes a necessary step in the problematization of the relationships between reading and academic performance. A secondary analysis of the data obtained in a research project developed to explore reading habits in students of a Distance University was carried out and using multivariate statistical methods an Independent Reading Pleasure Index (IPLI) was constructed. The statistical methodology used, allowed us to identify in the Index, two dimensions; one individual and other one collective evidencing the initial hypotheses about the confluence of elements of individual resignification and the emphatic identification with otherness, factors that intervene with equal importance in the individual pleasure expressed when reading. To establish the level of pleasure in reading in students that start studies at university, allows teachers and managers to think about pedagogical strategies of intervention to strengthen the habit of reading in students. It is expected that; those interventions allow improve the academic performance and training for the working life on individuals

Keywords: Pleasure in reading, independent reading habits, university students, distance vocational training, latent variable, pleasure index.

Resumen

Diversas investigaciones corroboran la relación entre lectura independiente y desempeño académico; sin embargo, considerar únicamente que a mayor lectura independiente mayor rendimiento académico resulta una perspectiva reduccionista. Analizar el componente de placer que se encuentra implícito en la lectura independiente permite desentrañar la relación entre estudiante y objeto de lectura desde las mediaciones que devienen en la construcción de conocimiento, empatía, creatividad y criticidad; con lo cual se convierte en un paso necesario en la problematización de las relaciones entre lectura y desempeño académico. Se realizó un análisis secundario de los datos obtenidos en un proyecto de investigación desarrollado para explorar los hábitos de lectura en el estudiantado de una Universidad a Distancia y utilizando métodos estadísticos multivariados, se construyó un Índice de Placer hacia la Lectura Independiente (IPLI). La metodología estadística usada permitió identificar en la construcción del índice dos dimensiones una individual y una colectiva, permitiendo evidenciar las hipótesis iniciales acerca de la confluencia de elementos de resignificación individual y elementos de identificación empática con la otredad, factores que intervienen en igual importancia en el placer que expresa un individuo al leer. Establecer el nivel de placer hacia la lectura en estudiantes que ingresan a la universidad, especialmente en el caso de los estudiantes a distancia, permite a los docentes y directivos pensar en estrategias pedagógicas y de intervención que fortalezcan el hábito de leer en los estudiantes, lo cual, se espera redunde en el buen desempeño académico y en la formación para la vida laboral de los individuos.

Palabras clave: Placer por la lectura, hábitos de lectura independiente, estudiantes universitarios, formación profesional a distancia, variable latente, índice de placer.

摘要

不同的调查研究证实了独立阅读和学业成绩之间的关系；然而，仅考虑独立阅读越高，学业成绩越高，这还只是一种还原论的观点。分析独立阅读中隐含的快乐成分使我们能够从导致知识建构、同理心、创造力和批判性的中介中解开学生与阅读对象之间的关系；这一分析成为解决阅读和学业成绩之间关系问题化的必要步骤。我们对一个研究项目中获得的数据进行了二次分析，该项目旨在探索远程大学学生的阅读习惯，并使用多元统计方法构建了独立阅读快乐指数（IPLI）。所使用的统计方法允许在构建指数时确定两个维度，个人维度和集体维度，从而可以证明关于个人重新定义的要素和移情认同与他者的要素汇合的初步假设，这些因素在个人阅读时所表达的快乐中具有同等重要性。帮助刚进入大学的学生建立阅读兴趣，让教师和管理人员能够考虑加强学生阅读习惯的教学和干预策略，这些干预措施可以提升个人的学习成绩和工作方面的培训。

关键词: 阅读乐趣、独立阅读习惯、大学生、远程专业培训、潜变量、快乐指数。

Аннотация

Несколько исследований подтверждают взаимосвязь между самостоятельным чтением и успеваемостью, однако, считать, что чем больше самостоятельного чтения, тем выше успеваемость - это упрощенная точка зрения. Анализ компонента удовольствия, который подразумевается в самостоятельном чтении, позволяет нам раскрыть отношения между студентом и объектом чтения с точки зрения посредников, которые приводят к построению знаний, эмпатии, креативности и критичности; таким образом, это становится необходимым шагом в осмыслении взаимосвязи между чтением и успеваемостью. Был проведен вторичный анализ данных, полученных в рамках исследовательского проекта, разработанного для изучения привычек чтения студентов университета дистанционного обучения, и с помощью многомерных статистических методов был построен индекс удовольствия от самостоятельного чтения (IPLI). Использованная статистическая методология позволила нам выделить два измерения в построении индекса, индивидуальное и коллективное, что позволило нам продемонстрировать первоначальные гипотезы о слиянии элементов индивидуальной переподчинения и элементов эмпатической идентификации с инаковостью, факторов, которые вмешиваются в равной степени в удовольствие, которое человек выражает при чтении. Установление уровня удовольствия от чтения у студентов, поступающих в университет, особенно в случае заочников, позволяет преподавателям и директорам задуматься о педагогических и интервенционных стратегиях, укрепляющих привычку к чтению у студентов, что, как можно надеяться, приведет к хорошей успеваемости и подготовке к трудовой деятельности.

Ключевые слова: Удовольствие от чтения, привычки самостоятельного чтения, студенты университета, дистанционное профессиональное обучение, латентная переменная, индекс удовольствия.

Introduction

Since the eighties of the last century, studies such as those carried out by Berns, Blaine et al. (2013), Cullinan (2000), Kidd and Castano (2013), Mar and Oatley (2008), among others, have found evidence linking the practice of independent reading and the development of skills necessary for academic performance of university students. Barahona (2017) refers to the relationships between independent reading and the increase in the richness of vocabulary and verbal fluency, the increase in the ability to produce

texts with better organization of discourse and content, an improvement in the ability to understand that others can harbor perspectives and visions of the world different from their own, and even a sharpening of the skills linked to the theory of mind. Similarly, Elche et al. (2019) highlight how the reading that university students do voluntarily in their leisure time enhances their abilities to interpret, summarize, assimilate, contrast and criticize. On the contrary, non-reading university students are usually characterized by more passive attitudes in the classroom, little willingness to discuss, participate in class and involve in research. For these authors, reading becomes an essential element of the university context (Elche et al., 2019).

It is evident then that there is a relationship between independent reading and academic performance. However, assuming that this is a linear relationship (more reading then higher academic performance) defines a reductionist perspective, which would solve the problem by requiring the student to have a reading quota in order to obtain better results. From another perspective, the existing pleasure component in independent reading can be considered as a strategy that allows delving into the relationship of the individual with the object of reading, thus facilitating the understanding of the mediations that promote the development of skills related to empathy, analysis, creativity and criticality.

Conceptually, independent reading is defined as reading that, when chosen by students for information or pleasure, reflects their personal decisions in terms of the material to be read, and the time and place to do so (Cullinan, 2000). Starting from this definition, we can say that independent reading has an underlying component of pleasure that is not only intrinsic, but could also be argued as a triggering element of reading practice. The discussion around the component of pleasure in this type of reading has remained present since the mid-seventies. However, this debate has occurred rather indirectly, focusing the analysis on aspects derived from the relationship among pleasure, education, and reading, but without clarifying the relationship itself.

An important vein of research has focused on exploring the links between reading for pleasure and academic achievement, focusing primarily on underage student populations and directing the debate towards how to promote reading pleasure (Cullinan, 2000; Dezcallar et al., 2014; Lockwood, 2011; Robles, 2000). Another line of research considers that observing independent reading only as a means to fulfill academic obligations has resulted in a disruption between pleasure and knowledge, thus stripping the latter of its inherently playful character and promoting educational systems that, far from encouraging the creation of knowledge, are limited to promoting the memorization of information. This research vein is characterized by studies that allude to the claim of pleasure as part of the creation of knowledge. But, researchers leave aside the analysis of its particular relationship with reading (González et al., 2003). Finally, from the branch that seeks to claim the importance of independent reading as such, studies prevail that investigate topics such as the effects of fiction reading and literary narrative on the modification of cognition learning achievement through reading experiences. However, in none of these studies the element of pleasure is directly addressed (Berns et al., 2013; Kidd & Castano, 2013; Mar & Oatley, 2008).

In general, since the mid-nineties research has aimed at linking reading, education and pleasure focusing its analysis on three elements: making explicit the importance of pleasure in education, delving into the academic effects of independent reading or investigating how to produce pleasure through reading. It is evident then that an absence prevails in the conceptualization of the pleasure of reading as such, since it is

usually taken for granted, it is assumed from its colloquial meaning or it is shown in a diffuse way without being defined.

The greatest debate around the definition of pleasure of reading has been given by philosopher and semiologist Barthes (2009), who, following a psychoanalytic line of Lacanian court, proposes an understanding of pleasure/enjoyment from the ability of the text to produce one or the other. As the author himself points out "... the pleasure of the text would be irreducible to its grammatical functioning" (p. 29), so that the text is attributed the intrinsic capacity to generate pleasure or in its highest sense enjoyment. In other words, pleasure and enjoyment are possibilities that come from the text that can be perceived timelessly and by anyone regardless of their context. Given the interest of Barthes (2009) in claiming the importance of the creative process in writing, his conceptual proposal of the pleasure of reading places as a starting point the text and not the subject, the individual or the collective, who perceives it. The problem of putting the weight of conceptualization on the content lies in the fact that the creation of a hierarchical classification of texts tends in turn to the reproduction of an elitist classification of social groups; this is how the pleasure of reading texts from popular culture is conceived as inferior. In the words of Nell (1988), since it is the elite who defines which cultural values are accepted as legitimate, intrinsically negative value judgments are established towards the reading choices of the dominated groups, thus legitimizing the cultural superiority of one group over another.

On the basis of behavioral psychology, Nell (1988) places the weight of pleasure towards reading in the individual, giving priority in his analysis to the psychological stimulation that exists as a reward during reading. From the perspective of this author, it is the rewarding cognitive events resulting from the interaction between the book and the individual that generate the necessary reinforcement for the person to choose to read about other possible playful activities. In this context, a sentence, a paragraph or a change of page can be decisive in the continuity that the person gives to reading. This is due to the reaction that this fragment produced in the person; the weight of the explanation is not found in the text but in the cognitive event that it triggered in the individual. It is worth emphasizing, following this author, that this interaction between text and reader is shaped not only by personality variables but also by the existing social value system.

The works of Barthes (2009) and Nell (1988) lay the foundation for conceptualizing the pleasure of reading as a complex element that cannot be reduced to a side effect of the intrinsic literary capacity of the text or to a personal preference. Pleasure must be understood from the historical, cultural and social dimensions encompassing it and which is redefined by each individual within the framework of their concrete experiences. In this work we consider that the pleasure of reading is composed of two dimensions: an individual and a collective. The individual dimension reflects the construction of a preference in two ways. On the one hand, it accounts for criticality and decision about what to read and when to do it (Cullinan, 2000; Dezcállar et al., 2014) and on the other hand, it refers to the recreational benefits that the person perceives for himself as a result of the reading practice. The collective dimension is the component that reflects the transversality of the socio-historical context of the individual which refers to the ability to identify empathically with others through reading. Therefore, independent reading is understood as a pleasurable practice when referring to the emotional bonding with other people (González et al., 2003; Mar & Oatley, 2008).

Starting from this conceptual assumption and having as a parameter to deepen into the understanding of the relationship between university student and the object of

independent reading, this article seeks to inquire about how to measure the pleasure of reading in university students. In this line of ideas, the objective is to present a theoretical-methodological proposal that allows to represent the pleasure of independent reading as a measurable variable using statistical methods within the framework of the theory of latent variables. Starting from this framework, the level of the pleasure of independent reading is not a directly measurable (observable) characteristic in an individual, so it must be defined conceptually and operationally, in order to approximate its expression through measurements made on previously identified "observable" variables. The operationalization process allows for an approximate quantification of the level of presence of the latent variable. This quantification is expressed through index numbers or indicators (See Silva, 1997). For the construction of indexes, different methodologies have been proposed from the statistical point of view, such as Rasch Models (Anderson et al., 2007), Factor Analysis (Brown, 2013), Structural Equation Models (Maslowsky, 2015), Scales (Salathé et al., 2017), Principal Component Analysis (PCA) (Aluja & Morineau, 1999) and Multiple Factor Analysis (AFM) (Escofier & Pages, 1998). Among these methods, the ACP and the AFM are the ones that allow for working with both a large number of variables and a large number of individuals. The methodological development is illustrated through the results of a survey conducted to students of an Open and Distance University.

Method

A research study was carried out in which a group of students from an Open and Distance University participated with the aim of making a first approach about the reading practices of active students at the institution. The data were obtained within the framework of a cross-sectional study of descriptive scope (Hernández et al., 2014), in which a questionnaire-type instrument was applied that inquired about the relationship among reading, pleasure and education.

Participants

The subjects of the study were students enrolled in any semester of any of the academic programs offered by the State Distance University of Costa Rica (UNED). Students carry out academic activities from home with the support of the virtual educational platform MOODLE installed in an online system "Limesurvey". They only went to the university campus to receive timely tutorials. At the time of data collection, there were 10581 students who had at least 24 earned credits. For the calculation of the sample size, an expected standard error of ± 2.34 points in the total score of an index to measure reading pleasure and a confidence level of 95% (Barahona, 2017) was assumed, so that the instrument was applied to 1506 students. The field survey was carried out during four months in which an access link to the survey was enabled and messages were sent to the students inviting them to fill in the instrument. The data used for the construction of the index correspond to the responses of the individuals who answered affirmatively to the filter question about the inclusion of book reading as part of their recreational activities. The final sample was made up of the records of 752 students.

Instrument

The research is proposed under a quantitative approach, making use of the survey as an information collection technique. The construction of the questionnaire "Reading Habits" consisted of three stages that allow us to account for its validity: first, it was based on the review of the models that have been used in different countries to address the subject; second, a pilot test was carried out with the first version of the questionnaire and, third, this second version was compared from peer review (Hernández et al., 2014; Sauto et al. 2005). In its final version, the instrument had a total of 128 items organized into nine sections: 1. Personal data, 2. Instrumental reading habits, 3. Independent reading habits, 4. Reading experience, 5. Acquisition, access and possession of books, 6. Reading in the digital environment, 7. Cultural context related to reading, 8. Attitudes towards reading, 9. Use of libraries and information centers (Barahona, 2017). The questions whose answers were considered for the construction of the IPLI appear in Table 1.

Index to measure the level of pleasure of independent reading IPLI

Variable selection

The Survey administered provided a large amount of information regarding the reading practice of students. For the design of the index, all those items that allowed to bring pleasure closer to independent reading as a measurable variable (observable variables) were considered. A selection of 18 items associated with the same number of variables was made which, according to the literature review, allow to operationalize the collective and individual dimensions of this type of pleasure (Table 1).

Table 1

Items (variables) of the questionnaire used in the construction of the IPLI

Variable type	Variable	Notation (X_j)	Answer
Discrete quantitative	Number of books listed as favorite	X_1	0,1,2,3
	Number of authors named as favorites		0,1,2,3
	Number of publishers named as favorite	X_3^2	0,1,2,3
Dichotomous Qualitative	Are you currently reading a book for recreation?	X_4	Yes – No
	Recreational reading relaxes me	X_5	Yes – No
	Recreational reading entertains me	X_6	Yes – No
	Recreational reading allows me to escape reality	X_7	Yes – No
	Recreational reading allows me to acquire new knowledge	X_8	Yes – No
	Recreational reading makes me feel good	X_9	Yes – No

Variable type	Variable	Notation (X_j)	Answer
<i>Ordinal Qualitative</i>	How long ago did you acquire your last favorite book?	X_{10}	1-More than a year ago 2-During the last year 3-During the last six months 4-During the last two months 5-During the last month
	Do you like to talk to your friends or family about literature?	X_{11}	1-Nothing 2-Little 3-Quite 4-A lot
	How much do you like to read?	X_{12}	
	How much do you like to be given books?	X_{13}	
	How much do you identify with the protagonists of the reading you do?	X_{14}	
	How much do you identify with the ideas of the readings you do?	X_{15}	
	How much do you become emotionally involved with the plot of the readings you do?	X_{16}	
	How much do you subsequently reflect on the content of the readings you do?	X_{17}	
	How much does what you read influence your worldview?	X_{18}	

Index construction

With the set of variables selected, three proposals were adjusted, one using Principal Component Analysis (PCA) and two more using Multiple Factor Analysis (AFM).

For the index constructed using ACP, the answers to the questions associated with the variables were categorized, $X_{11}, X_{12}, \dots, X_{18}$, so that the answers "Nothing" and "Little" were assigned value zero and the answers "quite" and "a lot" value one. The answers to the question associated with the variable were assumed as actual numerical values. The PCA was performed using four quantitative variables (X_1, X_2, X_3 y X_{10}) and 14 dichotomous variables. It was verified that among the 18 variables, the assumption of the size factor was met, that is, that all the variables present a positive correlation between them (Aluja & Morineau, 1999).

The relative weight (β_j) for each variable (X_j), transforming the eigenvalues of the first major component by dividing each value over the sum of all. The IPLI equation for

individual i was defined as the weighted sum of the products between relative weights and the responses to the items (Equation 1).

$$IPLI_i = \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_{18} X_{18} \quad (1)$$

For the index constructed using AFM, two approaches were proposed. The first was to adjust an AFM with the 18 variables on the scale as the data were captured in the field, that is, assuming the ordinal type responses for the variables, $X_{10}, X_{11}, X_{12}, \dots, X_{18}$. The second approach considered adjusting the AFM considering the dichotomization in the proposal of the index by ACP and considering X_{10} as an ordinal qualitative variable. These indexes were obtained as a linear or sum weighted function of the relative weights of each variable and the response to each of the quantitative and dichotomous m variables and the ordinal / variables (Equation 2).

$$IPLI_i = \sum_{j=1}^m P_j X_j + \sum_{j=1}^l \sum_{h=1}^k P_{hj} X_j \quad (2)$$

$IPLI_i$ = pleasure index of independent reading of a specific individual; P_j = weighted sum of the relative weights of each quantitative and dichotomous variable; X_j = variable; m = the response to each of the quantitative and dichotomous variables, l = the response to each of the l ordinal variables; P_{hj} = weighted sum of the relative weights of each ordinal variable.

In order to make the results obtained when applying the indexes comparable, a mathematical transformation was applied that allowed the original scale to be expressed from an interval of the positive real numbers into a scale in the range [0-100]. The transformation used to rescale the indexes appears in Equation 3.

$$IPLI_i = \frac{PLI_{obs} - PLI_{min}}{PLI_{max} - PLI_{min}} * 100 \quad (3)$$

Selection of the best index

As there are three different constructions of the IPLI and there is no benchmark to establish which of the indexes presents a better classification, it was proposed to select the index according to its consistency in the estimates of the relative weights of the variables from the calculation of an estimation error (EE). Then, for each of the proposals for the construction of the IPLI, the index was calculated in its transformed range of 0-100 and the value of the median of the 752 individuals was obtained, considering it as a reference value $IPLI_{referencia}$.

The choice of the median as a reference value is due to the fact that the histograms obtained after evaluating the index in all individuals presented an asymmetric shape.

Using randomization algorithms included in the statistical software, a subsample of 602 individuals (80%) of the original sample was obtained. Applying bootstrap methodology, the construction of each of the indexes was repeated 100 times and for each repetition the median was calculated and then the arithmetic mean of the 100 medians was obtained ($IPLI_{mediana}$). The Estimation Error (EE) was obtained by calculating the difference between the reference value $IPLI_{referencia}$ and the mean of the medians $IPLI_{mediana}$ (Equation 4). It was assumed as the best approximation to the index that the difference with the reference value was smaller.

$$EE = \text{IPLI referencia} - \text{IPLI}_{mediana} \quad (4)$$

Cut-off points and construction of categories

Once the IPLI with the lowest EE was selected, the index cut-off points were defined using the K-means clustering method and resampling methods. For this, 1000 samples with replacement size 752 were generated from the records of the data file and the value of the IPLI per record in each one (752 IPLI in 1000 replicas) was calculated. With each sample of index values, the K-means grouping method was applied to obtain configurations of three groups that identified the levels of pleasure of independent reading; mild, moderate and advanced. For each level, the lower and upper limits between the IPLI values were established. The procedure was repeated 10.000 times obtaining the same amount of minimum and maximum values of the IPLI per level of pleasure. For each set of values, the median was obtained and the cut-off points were established as the maximum value of the IPLI within each group, that is, the mild and moderate levels the cut-off point was established as the maximum value observed in the mild level group and as a cut-off point between moderate and high level, the maximum value observed at the moderate level was established.

Statistical data processing was performed using the PCA() and MFA() functions for the ACP and AFM, respectively (Lê et al., 2008) both included in the FactoMine package of the R software version 3.5.1.

Results

According to the criteria established to select the best index, the IPLI constructed using ACP presented a lower value for the estimation error (EE) compared to the indexes constructed using AFM ($EE= 1.92$, vs $EE = 1.96$ and $EE = 2.33$).

The adjustment of the PCA showed that the first two factorial axes collected 28.63% of the variability of the data and the correlation of the 18 variables considered was directly proportional in a single direction, so that the theoretical assumption to adjust the procedure was met. Two groups of variables were identified that allowed to establish two dimensions not considered when constructing the measuring instrument. Thus, the collective dimension was formed by the operational variables ($X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}, X_{18}$) and the individual dimension by the variables ($X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}$). Estimated weights $\beta_j; j = 1, 2..k$ appear in Table 2.

Table 2
Eigenvector associated with the first major component

Variable	Transformed eigenvector*100 β_j	Variable	Transformed eigenvector*100 β_j
X_1	6.78	X_{10}	4.60
X_2	7.51	X_{11}	6.54
X_3	3.39	X_{12}	4.60

Variable	Transformed eigenvector*100 β_j	Variable	Transformed eigenvector*100 β_j
X_4	6.30	X_{13}	4.60
X_5	5.81	X_{14}	7.02
X_6	4.12	X_{15}	7.02
X_7	6.54	X_{16}	5.57
X_8	2.91	X_{17}	5.08
X_9	6.78	X_{18}	4.84

Table 2 shows that the items and variables that best express the degree of pleasure of reading among UNED students correspond to "The number of authors indicated as favorites" X_2 (7.51%) "How much do you identify with the protagonists of the reading you do?" X_{14} (7.02%), "How much do you identify with the ideas of the readings you do?" X_{15} (7.02%), "Number of books marked as favorites" X_1 (6.78%), "Recreational reading makes me feel good" X_9 (6.78%), "Recreational reading allows me to escape reality" X_7 (6.54%), "Did you read the last book you acquired?" X_{11} (6.54%) and "Are you currently reading a book for recreation?" X_4 (6.30%). The two variables with the lowest weight in the IPLI were "Number of publishers indicated as favorites" X_3 (3.39%) and "Recreational reading allows me to acquire new knowledge" X_8 (2.91%).

When applying the equation of the selected index to the responses of the UNED students, the following summary measures were observed for the sample of participating individuals (Table 3). The final values of the index presented a distribution with a tendency to be symmetrical around the arithmetic mean and the median whose values are quite close. A variability is important (coefficient of variation of .32) although this result was considered a favorable factor for the conformation of the classification categories.

Table 3

Summary measures for the IPLI in the sample of 752 study X_9 (6.78%) of the UNED

Minimum	Maximum	Median	Average	Standard Deviation	Coefficient of variation
4.38	100	58.44	59.07	18.93	32%

The procedure performed to obtain cut-off points that defined the exclusive categories in which to classify individuals, allowed to establish that for IPLI values between 4.38 and 46.10 (6.74, 70.89 on the original scale) the individual presents very low or mild levels of pleasure of independent reading, when the index takes values greater than 46.10, but less than 68.83 (70.89 – 105.84 in the original score) the individual can be classified as a person with moderate level of pleasure of reading and values between 68.83 and 100 (105.84 and 153.77) express a high level of pleasure of independent reading. In the sample of UNED students, it was observed that 33% (248 indi-

viduals) had high levels of reading pleasure, 40.7% (306 people) had moderate levels of pleasure and 26.3% (198 students) had mild levels of pleasure. Although in the case of the 752 people in the sample there was no individual with an IPLI less than 4.38, this possibility is admitted by the index as such, that is, if the result of the IPLI is zero. Then, it is understood that the individual presents very little or almost no pleasure of independent reading.

An example of calculation and use of the IPLI is presented. Suppose a student indicates in the survey that the number of favorite books (X_1) is two, the number of favorite authors (X_2) is three, the number of favorite publishers (X_3) is one and answers with affirmative answer to the questions associated with the variables $X_4, X_5, X_6, X_7, X_8, X_9$, that is, he acquired his last favorite book (X_{10}) during the last month he fully read the last book he acquired (X_{11}), he likes to read a lot (X_{12}), he does not like to be given books (X_{13}), he identifies a lot with the protagonists of the reading (X_{14}), he identifies a lot with ideas (X_{15}), he does not get very emotionally involved in the plot of the readings (X_{16}), he reflects on the content of the readings he makes (X_{17}) and what he reads does not influence much of his vision of the world (X_{18}). With these answers, the value of the ILPI for the student takes the following value:

$$\text{IPLI} = 6.78*(2)+7.51*(3)+3.39*(1)+6.30*(1)+5.81*(1)+4.12*(1)+6.54*(1)+2.91*(1)+6.78*(1)+4.60*(5)+6.54*(1)+4.60*(1)+4.60*(0)+7.02*(1)+7.02*(1)+5.57*(0)+5.08*(1)+4.84*(0)=125.2$$

The measurement of reading pleasure for the student in this example is 125.2. This value is transformed into a scale from 0 to 100, considering the minimum possible result that the ILPI can take (zero) and the maximum possible result (153.77)

$$\text{IPLI} = \frac{25.2 - 0}{153.77 - 0} = 81.42$$

Therefore, on a scale of 0 to 100, the student's reading pleasure is 81.42, and this pleasure can be classified as high.

Discussion and conclusions

Research carried conducted by Nell (1988) on the pleasure of reading highlights the existence of an interaction between the individual and the culture of belonging as a frame of reference for the definition of personal literary tastes. In congruence with this, the results of the IPLI also allow to observe this interaction between individual and collectivity. It can be observed that the variables that have greater weight with respect to the pleasure of independent reading are a combination of variables belonging to both the individual dimension and the collective dimension. Specifically in relation to the individual component, we have the following items in sequential order from highest to lowest: "Number of authors indicated as favorites" (7.51), "Number of books indicated as favorites" (6.78), "Recreational reading makes me feel good" (6.78), "Recreational reading allows me to escape from reality" (6.54) and "I am currently reading a book for recreation" (6.3). On the other hand, regarding the collective component, the variables stood out: "How much do you identify with the protagonists of the reading you do? (7.02), "How much do you identify with the ideas of the readings you do?" (7.02) and "Like to talk to friends or family about literature" (6.54). Thus, this combination of individual and collective aspects in the variables of greater weight of

the pleasure index of reading suggests the confluence of these elements as constituent dimensions of pleasure.

For Dezcállar et al. (2014) the pleasure of reading is directly linked to reading ability and the possibility of "own decision and freedom of choice of material" (p.108) and according to Nell (1988), we agree that reading decisions are crossed by the sociocultural context of the individual, however, it is considered that these social systems should not be assumed as determinants. On the contrary, it is necessary to take into account the capacity of the individual to resignify the context through his concrete life experiences (Bourdieu, 1977; Wacquant, 2014). In this line, the individual dimension of the IPLI grouped variables directly linked to the construction of a preference or taste for what to read and who to read, such as the number of books, authors and publishers mentioned as favorites; variables related to the decision about when to read, specifically, whether the person is currently reading and how long ago he acquired the last book for recreational purposes. It is also considered important how the IPLI allowed to observe a significant relationship between the variables related to the positive perceptions of the individual of independent reading, which are evident in the responses to items such as recreational reading relaxes me, entertains me, allows me to escape from reality, allows me to acquire new knowledge and makes me feel good. It is evident that the orientations of the responses to these items point to a positive resignification of reading by the individual and, in that framework, to the decision-making about the choice of the material and when to read it.

From a cognitive approach (González et al., 2003), the act of reading for pleasure is understood as a significant experience that through the recognition-expression of emotions, the confrontation of otherness and reflection on personal experiences allows to move from the act of processing information to the construction of knowledge. In congruence with this, the collective dimension collected by the IPLI goes beyond the measurement of the personal meanings of reading and emphasizes the emotionality derived from the possibility of identification with the otherness which is generated through reading. The collective factor was composed of variables of direct interaction such as the taste for being given books and the taste for talking about literature with friends or the family; variables referring to the identification of the reader with the protagonists and with the ideas of the readings; and variables referring to the emotional involvement with the plot of the readings and the reflection and influence of these on the person's own worldview. The research findings of Mar and Oatley (2008) corroborate that the relationship between reading and a greater empathic identification with "the other" is possible given the effects of literature on increasing capacities to understand perspectives and worldviews different from one's own; in the words of these authors, literary narrative offers models of social simulation through abstraction and simplification, which in turn facilitates in the person the understanding of other individuals with ways of life different from their own, thus increasing the capacity for empathy and social inference.

We can conclude that the IPLI is consistent with the theoretical proposals for the understanding of pleasure of reading that have been raised in literature, contemplating both the personal resignifications of reading that allow a person to make decisions about it, and the connections among pleasure, emotionality and empathic identification that are generated through reading. In terms of scope, it can be said that the IPLI offers a possibility of measuring the pleasure of independent reading, thereby facilitating its understanding and opening a path to deeply investigate the relationships between university student and the object of reading, all of which allows us in turn to

advance in the debate on the analysis of mediations that make independent reading a factor that drives university students to develop analytical, creative and critical skills. From a more operational perspective, the IPLI then becomes a tool that can be used in universities, especially those that offer open and distance education, to establish the levels of pleasure that students get from the act of reading.

At university level, there is a predominance of academic reading, which according to Miller and Merdian (2020) is different from other types of readings because it has an established purpose and is critical, which makes it more complex and requires greater effort. In a research study conducted with high school seniors, Whitten et al. (2016) reported that young people who read for pleasure earned better grades in their subjects and, in general, their academic performance was higher. It is then considered that, when the student upon entering university exhibits high levels of pleasure of independent reading (measured with the proposed instrument and index), it will be much easier for him to carry out his university academic reading activities, which will result in good academic performance and a better level of professional training. This situation would be expected to occur only in 33% of individuals who enter university, such as the UNED which leaves almost 70% of applicants to higher education in low or moderate levels of pleasure of reading.

Having a high percentage of students who do not feel high levels of pleasure of independent reading can be seen as an important issue in institutions such as the UNED that provides professional training at distance, so strategies must be developed to refine the initial information provided by the index and develop interventions focused on strengthening students' reading pleasure.

For students who have low values in the index, there may be many possible alternatives to consider. In the case of having few people in the group, it is possible to make individual interviews and explore a little more thoroughly about the causes associated with the fact that the student does not enjoy or feel pleasure reading independently. For example, there may be negative experiences around reading during basic training and / or having grown up in homes where there is no reading habit and parents never encourage this activity because among many reasons, they themselves do not do it. Based on the new information, personalized intervention strategies can be designed in which different professionals of the social sciences (psychologists, pedagogues, Spanish and literature teachers) participate and propose activities aimed at increasing students' interest in reading. When the groups of individuals with very low index are large, it will be more difficult to establish the most individual causes; thus explorations could be made through focus groups or group interviews to have more detailed information. In both situations, the interventions to be prepared could include workshops and preparatory courses on reading and writing, in which, with the accompaniment of a teacher, students read works of literature and talk about the emotions, feelings they experience when reading the chapters or sections of the work. These sections can be selected in advance by the teacher to have greater clarity on what is expected to happen to young readers. For students with moderate levels of pleasure, similar interventions can be developed, only that in this case, the frequency of encounters and the intensity of work may be lower taking advantage of the natural incentive existing in the individual.

The methodology developed to build the IPLI may be complex for some researchers and teachers in the social and human sciences. However, the index can be calculated simply. The teacher who is interested in having the indicator, must administer a survey-type instrument including the 18 questions in Table 1 (the answer options cannot

be modified) and with the answers of the individuals, apply Equation 1 (in the same way it appears in the illustrative example) and obtain the gross score. If interested in having a standardized value on the scale of 0-100 he/she should use Equation 4 (as shown at the end of the illustrative example). The value obtained is compared with the points proposed as a reference for the limits of the classification categories and in this way, he/she will obtain an approximation to the degree of pleasure of the independent reading of a specific individual.

Finally, it is considered as limiting not to have had a research specifically oriented to investigate the pleasure of reading, but, as noted above, this article is derived from the "Exploratory Study on reading habits in the students of the State Distance University (UNED)", a study that in its exploratory nature had a broader and general objective. However, the methodology implemented allowed to build a consistent practical proposal at the theoretical level which, in turn, offers the possibility of being replicable for different contexts.

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