# LEARNING BEYOND THE NEWS: THE NEWSPAPER GAME FOR COGNITIVE AND LITERACY SKILLS

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***Abstract*** *— This paper aims to promote cognitive skills in learning–impaired people beyond the Newspaper Game, an intelligent-web based system that analyses characteristics of 13 textual genres found in the newspaper support media. During the game, the player can build a newspaper and exercise writing different genres, while a Bayesian agent recognizes genres and evaluates the meta-cognition content. A textual ontology is been build up based on Travaglia (2007) taxonomy studies. The project, which has been modeled within Xtreme Programming and UML methods, has finished its prototype phase and is under software implementation. By January, the scientific validation will rely on information collected during school experiments. The literacy achievement will be mediated under a neuro-educational methodology called "Elaboração Dirigida", founded by Seminério based on Flavell, Piaget and Bandura´s theories.*

*Index Terms — conceptual taxonomy, textual genres, Bayes classification, recreational metacognition.*

## INTRODUCTION

This study is part of a larger project whose goal is to promote cognitive skills in children and adolescents from public schools in Brazil, by applying the tools of science fun. Those games have been constructed under the model of Franco Lo Presti Seminério, based on Flavell, Shimamura, Piaget, Bandura, Bruner, Vygotsky, Luria and Chomsky. Moreover, one of our contributions to the state of the art of Genre classification is the organized system we created in order to deal with the analysis of both the differences and common characteristics of 13 textual genres found in the newspaper support media, organized in a conceptual taxonomy of textual variety, so that they serve as a basis for building ontological description of a model tool that will be used in the construction of a computer game for the analysis of texts produced by children, within the aim to promote recreational meta-cognition from the rules of textual diversity.

### The purpose of this research

The development of this game corresponds to a master dissertation project, which the hypothesis is to investigate whether the task of writing a variety of genres within the game, the students of primary and secondary domain will increase their quality of writing, because its content will be taken from a single source of a National Journal Online, which has not yet been defined as a matter of negotiation copyright. Therefore, this task is directly related to real situations, offering learning from texts writing as strategies for acquiring new knowledge. It is also worth mentioning that from a study on this subject, we found similar work already undertaken in the area of Language Processing Natural (PLN) also known as computational linguistics, which deals with problems related to automation of the interpretation and generation of human language in applications and for this work we will first concentrate on , retrieval and information extraction, in classification of genres, creation and availability of dictionaries / glossaries, development of taxonomies and ontology, development of marking and automatic morphosyntactic analysis. All these contributions of the state of the art theme are referenced to a better preparation of the tools used in this game. In this short paper we would like to describe the ongoing changes of approach towards the development of the game.

## THE GENRE CLASSIFIER

On the surface, the genre classifier we will develop is no different from the traditional learning-based classifier. The learner extracts features representing genre classes from online documents whose genre classes are known already, and a classification algorithm determines to which class a new document should belong using the learned representations of the genre classes. The major difference lies in the method by which features will be extracted and their weights will be calculated. In comparison with previous genre classification approaches, furthermore, the difference lies in the incrementing of data which rely on the features suggested by a textual linguistic theory extemporized to the purpose of the research.

### Overall method for genre analysis

We created a variable grammatical structure (compositional) >> lexical (thematic content), linguistic (language surface) >> semantics (goals and functions social communicative) and intentional>> (production conditions). These five classifications were contributions from [1] and

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were complemented by our research of genre definitions and concepts taken from various sources including [7]. It's important to mention that even though the dimensions suggested by [1] are not specifically about genres but text type, we have used them, as it is known that texts types compose genres. According to the definition of those five criteria we organized the content from the definition of those thirteen genres into grids, each one corresponding to a dimension.

It is important to mention that this research has been done using the Brazilian Portuguese language for analysis, so translating it may alter the basic principles of research. Furthermore, the example sentences and the information inside the grids will not be translated to English. The numbers inside of the columns in the grids are related to the genres. They were selected according to the suggestions stated in the National School Curricular Parameters for teaching Portuguese literacy [7], which were by the way found in online newspapers as well. They are (1)Headlines, (2)Article, (3)Interview, (4)Movie review, (5)Comic strips, (6)Horoscope, (7)Slogans, (8)Advertisement, (9)Recipe, (10)Letter to the editor, (11)Chronic, (12)Editorial, (13)news report, (14)daily news.

The fist grid we organized is the compositional structure of the given genres, which according to [1] has as its primary criterion the question of the superstructure, of fundamental importance in the characterization of text genres. For example, the texts that have a narrative that tells a story as necessary and dominant in its composition (e.g., novel, short story, novel - literary, radio, TV - tale, fairy tale, fable, fable, parable, joke, legend, myth, where, gossip, biography, epic, heroic poem, etc..) fit all the superstructure generally proposed.

The "complication" and "resolution" are the only parties or mandatory categories of the superstructure of the narrative. Thus, it is possible to make a narrative text that tells a story with only two sentences in Portuguese, as in (*My son fell ill with five years old and died in a month*.). Are recursive and may appear several times: a) the introduction, complication, climax, comments, and results when there are multiple rows or chains of episodes. b) The guidance that may appear for each new episode or chain of events. All parts or sections of the superstructure that is optional or may not be carried out by gender and when it is part of the systematic characterization of it.

All categories of the superstructure can be carried out differently according to the genre, which is certainly important to characterize it. For example, the joke usually has only a little guidance when needed to characterize the minimally character and the situation with the characteristic essential for the establishment of humor and one or a few episodes, usually with a resolution that comes fast.

According to what was proposed in [1], the superstructure of a text type of injunctive, such as in a novel consists of three parts or schematic showing three categories, [1] notes that part of the cast or description is always descriptive, determination or encouragement is always injunctive and explanation, justification or incentive may be descriptive, covers or narrative. Thus, the genres that are necessary and mandatory dominantly (religious messages doctrine, instructions, user manuals and / or assembly of appliances and others, cooking recipes and prescriptions, emphasis in behavior: for example, like driving in fog , etc..) will present this superstructure as a whole or in part of its own superstructure.

Concluding that, the superstructure type will influence the genres that compose the type. In the superstructure, other elements of structure of the text are considered as criteria in the parameter of compositional structure. [1] was referring, for example, to the characterization of some species of lyric poem Type: a) acrostic: the first letters of the verses read in vertical form a name or phrase; b) ballad: poem composed of three octaves and a final block, sometimes replaced by quintiles in which the offering, octosyllabic three variables or cross-rhymes c) sonnet: composition of fourteen lines, divided into two blocks and two triplets, with the last verse called "golden key" to contain the essence of the poem;

d) (haiku: poem of fixed form with three stanzas of verse with a total of seventeen syllables metrics distributed as follows: first line: five syllables, second line: seven syllables, third line: five syllables), etc.

Another important element for the characterization of genera, [1] is the size of the compositional structure in the text types and species. The narrative which tells a story can be formed by the type description, lecturing, injunctive and narrative, in conjunction, and the narrative is dominant and others appear under it. Not only speaking of the superstructure of historical narrative, but also the parts which the superstructure are carried out preferably by one of the texts types specified.

Last but not saying that these are all the criteria related to the compositional structure, since other factors may be viewed as part of the compositional structure of a category of text as well. We shall not try to explain every criterion in this article, which aims to give an overall idea of the definition concerning those dimensions.

In the grid below, column 1 represents the headline genre, and the structural parameter we had then given to it, is outdated, since we decided to use online papers, and a specific one, this information will have to be revaluated. However, it is still valid for traditional printed papers. Thus, it can still be used for other purposes of text genres identification.

Not all of the information is outdated, so this taxonomy will contribute a lot to the development of this research game, since it provides a very organized way to look at content. Moreover, it will help the future phases of this research project, which concerns the selection of concepts which can possibly be mathematized and used to feed the Bayesian classification in order to make it as solid as possible.

| ESTRUTURA COMPOSICIONAL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| É um título no alto da primeira página de jornal ou revista? | ■ | | | | | | | | | | | | | |
| Possui quatro parágrafos? | | | | | | | | | | | | ■ | | |
| Traz informações novas e inéditas? | | | | | | | | | | | | | | ■ |
| Possui tema específico e um autor? | | ■ | | | | | | | | | | | | |
| Faz um posicionamento crítico? | | ■ | | | | | | | | | | ■ | | |
| Traz justificativas? | | | | | | | | | | | | ■ | | |
| Traz exemplos concretos e dados factuais? | | ■ | | | | | | | | | | ■ | | |
| Tem uma conotação negativa? | | | | | | | | | | | | | | ■ |
| Apresenta um consenso de várias opiniões sobre determinado assunto? | | ■ | | | | | | | | | | ■ | | |
| Apresenta opiniões de terceiros? | | | | | | | | | | | | | ■ | |
| Traz o testemunho diretos de fatos? | | | | | | | | | | | | | | |
| Apresenta argumentos? | | | | ■ | | | | | | | | | | |
| O texto traz dados bibliográficos? | | | | ■ | | | | | | | | | | |
| Faz uma divisão em capítulos ou seções? | | | | ■ | | | | | | | | | | |
| Utiliza de 3 a 5 parágrafos? | | | | ■ | | | | | | | | | | |
| Utiliza o requadro, o balão, e as legendas? | | | | | ■ | | | | | | | | | |
| Metadiscurso, através de marcadores pessoais, hedges e enfatizadores | | | | | | ■ | | | | | | | | |
| Evitar a linguagem atitudinal normalmente associada ao significado interpessoal | | | | | | ■ | | | | | | | | |
| Deve incluir um benefício-chave, deve diferenciar a marca, lembrar o nome da marca fazer rima com ele, | | | | | | | ■ | | | | | | | |
| Transmitir sentimentos positivos sobre a marca | | | | | | | ■ | | | | | | | |
| faz uma propaganda, um pedido, ou outros tipos de comunicação | | | | | | | | ■ | | | | | | |
| Seqüência ordenada de procedimentos que deverão ser realizados | | | | | | | | | ■ | | | | | |
| Informação sobre o tempo de preparo a quantidade que será produzida | | | | | | | | | ■ | | | | | |
| Especifique o assunto e seja breve; trace previamente o objetivo da carta (opinar, sugerir, debater) | | | | | | | | | | ■ | | | | |
| Narra fatos históricos em ordem cronológica, Trata de temas da atualidade | | | | | | | | | | | ■ | | | |
| Traz as pessoas comuns como personagens, sem nome ou com nomes genéricos sem aprofundamento psicológico | | | | | | | | | | | ■ | | | |

FIGURE. 1

The Second grid we organized is the thematic content of the given genres, which according to [1] a narrative has the thematic content of the events or facts organized into episodes (indication and detail - usually by means of description - of place, time, participant actors / characters + event: actions, or fact that occur).

Regarding gender, it is observed that many will have as one of its features content. For example, the Acceptance "is the text by which persons or institutions [1] state that they accept the invitation or offer made by another (person, institution)".

For instance in column 7, there is the thematic description of a slogan, which says it is a text with the aim of promoting and divulging a trademark, in order to make the public familiar with it – This definition may not be very useful for the mathematization of this genre. Hence, none of the semantic characteristics are very useful at this stage in which this project is. However, it may be valid for later developments of this game, when the semantics extraction in natural language process techniques are more advanced in results.

| CONTEÚDO TEMÁTICO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O testemunho direto de fatos e situações | | | | | | | | | | | | | ■ | |
| sua perspectiva atual | | | | | | | | | | | | | ■ | |
| A possibilidade de o autor expressar-se | | ■ | | | | | | | | | | | | |
| matéria escrita sobre algum tema específico | | ■ | | | | | | | | | | | | |
| Traz dados bibliográficos | | | | ■ | | | | | | | | | | |
| Alusão a uma notícia | ■ | | | | | | | | | | | | | |
| Matéria escrita sobre algum tema específico | | ■ | | | | | | | | | | | | |
| O posicionamento da empresa de Comunicação sobre determinado assunto | | | | | | | | | | | | ■ | | |
| Argumentos | | ■ | | | | | | | | | | ■ | | |
| Um texto em forma de síntese que expressa a opinião do autor sobre um determinado fato cultural, que pode ser um livro, um filme, peças teatrais, exposições, shows etc. | | | | ■ | | | | | | | | | | |
| Crítica direta | | | | ■ | | | | | | | | | | |
| Texto não é espontâneo nem natural | | | | | ■ | | | | | | | | | |
| Uma obra em que o autor cria os diálogos e as situações que envolvem os falantes, previamente. | | | | | ■ | | | | | | | | | |
| Divide-se em estágios na maioria dos casos uma verdade, uma crença arraigada na cultura popular, que ajuda a fazer o leitor recuperar um intertexto, evidentemente, pretendido pelo autor do texto | | | | | | ■ | | | | | | | | |
| A relação entre texto, contexto, conhecimento de mundo e coerência | | | | | | ■ | | | | | | | | |
| Deve ser memorável (capacidade de a frase ser lembrada sem auxílio) | | | | | | | ■ | | | | | | | |
| A grande idéia deve ser transmitida no anúncio | | | | | | | | | | | | | | |
| Comida e Lista de ingredientes que serão utilizados, com a respectiva quantidade | | | | | | | | | ■ | | | | | |
| Dar uma opinião, uma sugestão ou debater um tema | | | | | | | | | | ■ | | | | |
| O tema e o cotidiano e que leva o leitor a refletir sobre a vida comentando acontecimentos do dia a dia | | | | | | | | | | | ■ | | | |
| Divulgação de um acontecimento | | | | | | | | | | | ■ | | | ■ |
| Venda ou oferta de um produto ou serviço, a fim de troca comercial ou divulgação | | | | | | | | ■ | | | ■ | | | ■ |

FIGURE. 2

The Third grid we organized is the linguistic content of the given genres which [2] called the style, are in fact the compositional elements of linguistic formulation of the sequence of what many call the linguistic surface. These characteristics may relate to any level of language (phonological, morphological, syntactic, semantic, and pragmatic) or level (lexical, phrasal, textual).

The characterization by means of this parameter does not refer merely to the linguistic feature, but also its relationship with the properties of the category. They call the property, for example, the prospects of defining types, the introduction of the speaker and as enunciators (producing an utterance in context, conditioned by the contexts of situation and socio-historical ideological goals for interaction, etc. Finally, considering to production conditions), the goals / functions of the categories of text, the goals / functions of defining genres, etc. For example, taking the verb "present tense" that appears in narrative texts (story telling or not), mandatory, and descriptive essays of a variety of genres, one realizes that it has different roles or functions in each case.

Column 1 which represents headlines says that in its linguistic structure there are not usually seen connectors or pronouns, so we believe it is possible to be mathematized, we can create or look for dictionaries for those words or even grade values to them.

| CARACTERÍSTICAS DA SUPERFÍCIE LINGUÍSTICA | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A omissão das palavras desnecessárias (sequitos adnominais e adverbiais) | ■ | | | | | | | | | | | | | |
| Usa abor ATTH (para ate), INPAGO (não pago) e outras? | ■ | | | | | | | | | | | | | |
| a) Introduzir um argumento apresentado como acréscimo, um argumento a favor de uma determinada conclusão, além disso, ainda mais, além de, e mais, e, também, nem, nem mesmo, ademais, não apenas... Mas, não apenas... Mas também, e não só por que... Mas também, não só... Mas também, sobretudo, e também, além, mais um vez, mais ainda, aliás, ainda, e ainda | | | | | | | | | | | | ■ | | |
| b) assinalar uma oposição, mas, mas ainda, mas também, entretanto, porém, contudo, todavia, do contrário, no entanto, agora, ao contrário, - embora, mesmo que, apesar de, ainda que | | ■ | | | | | | | | | | ■ | | |
| Conectores para os mais diferentes tipos de relações: Conjunção, contra junção ou oposição, disjunção ou alternância, causa /consequência (explicativas, justificativas, causais, condicionais, finais, consecutivas, conclusivas), comparação (comparativas, (conformativas), comprovação, especificação (incluindo a exemplificação) entre outras | | | | | | | | | | | | | ■ | ■ |
| uso de adjetivos e gírias | ■ | | | | | | | | | | | | | |
| Descrição | | | | ■ | | | | | | | | | | |
| Argumentação | | | | ■ | | | | | | | | | | |
| Apresenta de 3 a 9 parágrafos ? | | | | | | | | | | | | | | |
| Discurso direto, onomatopéia, expressões populares? | | | | | ■ | | | | | | | | | |
| Prolongamento e intensificação de sons? | | | | | | | | | | | | | | |
| Linguagem persuasiva | | | | | | | | ■ | | | | | | |
| Construções condicionais com conectivo explícito, isto é, com se ou implícito? | | | | | | | | | | | | | | |
| Lembrar o nome da marca e o ideal é que o nome da marca seja incluído na frase | | | | | | | | | ■ | | | | | |
| Linguagem popular como um chavão ou alteração relevante e palavras cunhadas ou compostas | | | | | | | | | ■ | | | | | |
| Trocadilhos e rimas | | | | | | | | | | | | | | |
| faz propaganda, um pedido, ou outros tipos de comunicação | | | | | | | | | | ■ | | | | |
| Texto impessoal uso de 3ª pessoa (do ponto de vista morfológico) com valor de 2ª pessoa (do ponto de vista discursivo) | | | | | | | | | | | ■ | | | |
| Uso do imperativo | | | | | | | | | | | ■ | | | |
| Advérbio e locuções de modo [lentamente, lavemente, bem devagar, etc.] e, eventualmente, de tempo [depois, seguida, 20 minutos etc.] | | | | | | | | | | | ■ | | | |
| Nomes de alimentos e temperos; adjetivos e locuções adjetivas específicas (brando, fresca, média, fervente, fria, quente, etc.); e verbos específicos de atividades culinárias (cortar, picar, lavar, maturar, bater, desgelar, colocar, aquecer, descascar, cozinhar, preparar, juntar, escorrer, ferver, etc.) | | | | | | | | | | | ■ | | | |
| Escreva em uma linguagem clara, precisa e nunca faça uso de palavras de baixo calão | | | | | | | | | | | | | | |
| Inicie o texto fazendo referência ao assunto, tais como: "Com relação a...", "Em atenção ao anúncio publicado...", | | | | | | | | | | | ■ | | | |
| Uso de oralidade na escrita: linguagem coloquial. | | | | | | | | | | | | ■ | | |
| Dose de lirismo | | | | | | | | | | | | ■ | | |
| Uso do humor. | | | | | | | | | | | | ■ | | |

FIGURE. 3

In the fourth grid we organized the semantics, according to [1] the genre is defined by performing a communicative social function, which is not always easy to specify. For example, what is the goal, the communicative social function of a novel? The purpose / function may vary according to season and, if so, would change the characterization of the genre. In many cases, however, is easier to perceive the communicative social function of genres.

| OBJETIVOS E FUNÇÕES SOCIOCOMUNICATIVAS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Criticar | | | | ■ | | | | | | | | | | |
| Chamar atenção para um Determinado assunto | ■ | | | | | | | | | | | | | |
| Exposição de algum assunto de interesse mútuo | | ■ | | | | | | | | | | | | |
| Aprofundar mais em uma notícia Ou determinado tema | | | | | | | | | | | | | | |
| Veículo pelo qual o autor expressa sua opinião Sobre determinado assunto ou o resultado de estudos E pesquisas de determinado assunto | | ■ | | | | | | | | | | | ■ | |
| Posicionamento da empresa de comunicação Sobre determinado assunto que direciona As matérias publicadas por ele | | | | | | | | | | | | | | ■ |
| Formato de divulgação de um acontecimento Excepcional, anormal e de grande impacto social. | | | | | | | | | | | | | | ■ |
| Guiar o leitor pelo emaranhado da produção cultural que cresce a cada dia e que tende a confundir até os mais familiarizados com todo esse conteúdo. | | | | ■ | | | | | | | | | | |
| Expressar a opinião do autor sobre um determinado fato cultural, que pode ser um livro, um filme, peças teatrais, exposições, shows etc. | | | | ■ | | | | | | | | | | |
| Analisa de forma crítica sua opinião? | | | | ■ | | | | | | | | | | |
| Recomenda uma obra? | | | | ■ | | | | | | | | | | |
| Entreter, fazendo ou não críticas. | | | | | ■ | | | | | | | | | |
| Finalidades de entretenimento e aconselhamento | | | | | | ■ | | | | | | | | |
| Deve ser memorável(capacidade de a frase ser lembrada sem auxílio) | | | | | | | ■ | | | | | | | |
| faz uma propaganda, um pedido, ou outros tipos de comunicação que interesse ao público em geral, necessitando ou não de uma resposta para o autor | | | | | | | | ■ | | | | | | |
| Fazer com que o destinatário possa fazer comidas a partir da leitura da receita | | | | | | | | | ■ | | | | | |
| Opinar, sugerir ou debater um determinado tema | | | | | | | | | | ■ | | | | |
| Analisa os fatos que acontecem e dá um colorido emocional, mostrando aos olhos do leitor uma situação comum, vista por outro ângulo, singular | | | | | | | | | | | ■ | | | |
| Envolver, emocionar o leitor | | | | | | | | | | | | | | |
| Fazer o posicionamento da empresa de comunicação sobre determinado assunto | | | | | | | | | | | | ■ | ■ | |

FIGURE. 4

The fifth grid corresponds to the production. The criterion of "who produces" includes both the individual (usually occupying a society) and the discourse community [3], or sphere of social action [2], or social formations [4] or field discursive [5]. The community of discourse is important in the characterization, especially of the genera, as seen, are the ones that really move and work in a given society and culture. Thus, if the text is the journalistic sphere, forensic / legal, administrative, literary, medical, academic, religious (considering distinguishing between different religious groups), family relationships and social relations of everyday life, advertising, commercial, industrial, etc are very important, in some cases, there are genres with the same name, but they identify different categories from different discursive communities.

These criteria can be a lot useful for the mathematization process, since characteristics like the one for the movie review, which says must carry the writer's signature in it, can be easily mathematized by grading a value to names located on the top or the bottom of the text, or even use a trace to the writer's login name, since they will have to login to start playing the game.

| CONDIÇÕES DE PRODUÇÃO (quem, para quê, quando, onde) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jornalista, num jornal1ª página | ■ | | | | | | | | | | | | | |
| Precisa ser importante e significativa | | ■ | | | | | | | | | | | | ■ |
| Jornalista, autor, num jornal, numa revista | | ■ | | | | | | | | | | | | |
| Suporte JORNAL | | ■ | | | | | | | | | | ■ | ■ | ■ |
| Suporte REVISTA | | ■ | | | | | | | | | | ■ | ■ | ■ |
| PARA os leitores em geral | | | | | | | | | | | | | ■ | |
| Para os jornalistas que trabalham em um determinado jornal ou revista | | | | | | | | | | | | ■ | | |
| Um texto em forma de síntese que expressa a opinião do autor sobre um determinado fato cultural, que pode ser um livro, um filme, peças teatrais, exposições, shows etc. | | | | | ■ | | | | | | | | | |
| Para um público seleto. | | | ■ | | | | | | | | | | | ■ |
| Faz uma crítica direta. | | | | | ■ | | | | | | | | | |
| Identifica o autor, assinando. | | | | | ■ | | | | | | | | | |
| O espaço e o tempo em que os fatos ocorrem são produtos de um planejamento prévio tanto do tema quanto do aspecto lingüístico-discursivo, sujeito a correções. | | | | | | ■ | | | | | | | | |
| Escrito por astrólogo para pessoas guiadas pela força do gênero que buscam explicações e previsões. | | | | | | ■ | | | | | | | | |
| O vendedor para divulgação ou venda de algo ou conceito para o público os leitores. | | | | | | | ■ | | | | | | | |
| Em jornais impressos e revistas, além de websites, os anúncios podem ser publicados junto ao conteúdo editorial ou em seções separadas, denominadas Classificados | | | | | | | | ■ | | | | | | |
| Algumas vezes não é identificado. Outras vezes é alguém especialista no assunto que escreve para jornais ou revistas ou públicos livros. Em todos os casos, é alguém que sabe fazer uma determinada comida e pretende ensinar como fazer. | | | | | | | | | ■ | | | | | |
| Leitores de jornal, revistas e livros de culinária. Alguém que pretende fazer uma determinada comida | | | | | | | | | ■ | | | | | |
| O leitor para opinar sobre determinado assunto no jornal | | | | | | | | | | ■ | | | | |
| dentro de um espaço sempre igual e com a mesma localização | | | | | | | | | | | ■ | | | |

FIGURE. 5

### Future Proposals

From the period of November to December we shall limit the source by acquiring the copyright to use one online newspaper as a reference to gather data for analysis. According to [6] Bayesian classification needs a huge amount of data in order to provide as accurate result as possible, bearing in mind the fact that even the largest amount of perfect data entry has only been proven to be 80% solid, which will be measured by us how relevant the this result will be to the purpose of the game. In order to gather different genre text data we will use *Crawling and indexing content*, that is the process by which the system accesses and parses content and its properties, sometimes called metadata, to build a content index from which search queries can be served. Meanwhile, we intend to transform the scrutiny of the selected genres, which in fact, corresponds to a contribution of our research. We organized a matrix for the dimensions for classifying text genres drawn from [1] into taxonomy of genres according to their definitions found in different sources of teaching materials and dictionaries. Moreover, it will aid in the construction of attributes for the solidification of the students' texts Bayesian classification.

## CONCLUSION

In this paper we first described our methodology for genre classification using taxonomy. The proposed method uses concepts from selected genre-revealing features from the textual Linguistic literature. The deviation formula will make use of both genre-classified and conceptual features to eliminate features that can interfere in the classification and return useful information, so that teachers will be able to intervene in their students learning processes in a more effective way.

All in all we plan to have this mechanism running by the end of this year so that we undergo school experiments to validate the game next year.

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