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**UNIVERSIDADE DO ESTADO DO PARÁ**

**CENTRO DE CIÊNCIA NATURIAS E TECNOLOGIA**

**TECNOLOGIA EM ANÁLISE E DESENVOLVIMENTO DE SISTEMAS.**

Exercício de

Inglês Instrumental

Para a 1º Avaliação

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**Atividade 1.**

1- Sublinhe os verbos do texto abaixo e infira o seu sentido a partir do seu contexto de ocorrência, e responda as questões propostas.

One-on-one, people **use** wide channels of communication that **go** far **beyond** formal mathematical language. They **use** gestures, they **draw** pictures and diagrams, they makes sound effects and **use** body languege. Comunication is more **likely** to be two-way, so that people **can** concentrate on what **needs** the most attention. in **talks**, people are more **inhibited** and more formal...in papers people are still more formal. Writers **translate** their ideas into symbols and logic. And readers try to **translate** **back**...Mathematics in some **sense** nas a common language of symbols, technical **definitions**, computations, and logic. This language **efficiently** **conveys** some, but not all, modes of mathematical **thinking**.

Use – Usar | Go – Vai | Beyond – Além | Draw – Desenhar | Likely – Provável | Can – Poder Needs – Precisar | Talks – Conversar | Inhibited – Inibir | Translate – Traduzir

Back – Voltar | Sense – Sentir | Efficiently – Eficiente | Conveys – Conversar | Thinking - Pensar

A. De que trata o texto?

R= Formas de comunicação de pensamentos matemáticos.

B. Quais são as características da linguagem matemática?

R= símbolos, definições de técnicas, cálculos e lógica.

**Atividade 2.**

­­­Observe as vezes em que as formas do verbo **be** estão presentes no texto, em seguida responda as questões referentes ao sentido do texto.

**Abstract**: The aim of this paper **is** to discuss opportunities and prospects for training teachers of mathematics in the distance education mode. **It** builds on the experiences of two institutions of higher education, one with extensive experience in distance education, and the other developing a pilot project to **be** implemented later on a larger scale. **It** discusses the methods of distance learning that qere and **are** held in the world (that **were** held in the world and still **are**), and in which one (they fit) the courses surveyed could **be** included, the definitions of distance education that have **been** built over the time and what **is** the definition provided by law in Brazil; **it** debates also the tasks that teachers can take in this area and analyzes the curriculum of each course. This **is** a qualitative research, witch characteristics presented by Ludke and Andre (1986), which uses document analysis and interviews that **were** conducted with coordinators and teachers from diferente disciplines and the analysis of the interviews **are** based on the lessons of Bardin (2010). The theoretical foundations **were** sought especially in the work of Otto Peters, Maria Luiza Belloni, Garcia Gouvêa, Regina Silveira Barros Leal and Marcelo de Carvalho Borba. The results show that it **is** possible to conduct a good quality course in. Mathematics in distance education, that teachers have **been** successfully overcoming the problems encountered in developing their cousers to distance with the use of audio visual technology and resources, but there **is** still great difficulties on the part of teachers and students at this new opportunity, especially in terms of understanding of the peculiarities of distance education and the real role of teachers and students in this initial training.

**Key-words:** Distance education, teacher training and new perspectives.

1. Qual o objetivo da pesquisa?

R: Conhecer e discutir a qualidade, incluindo oportunidade e perspectivas, do ensino à distância no curso de matemática para a formação de professores.

1. Que tipo de instituição são objetos de investigação?

R: Faculdade de Educação superior na modalidade à distância.

1. O que revelam os resultados da pesquisa?

R: Que existem métodos de ensino melhores como o uso recursos audiovisuais e de tecnologias, porém há dificuldade principalmente por conta de não estar acostumado com o modo à distância.

**Atividade 3.**

Leia o texto abaixo, sublinhe e identifique os modais e o sentido que expressam. Em seguida, explique com suas próprias palavras sobre o que trata texto.

Teaching aplications in mathematics education and how to apply mathematics in real world are both essential and importante. Today it seems that the processo of applying mathematics in real problems is more importante than teaching apllied mathematics, i.e. modeling is more importante than models in mathematics education[4]. According to Hans Freudethal (1973), we could say that it is not so important that students learn applied mathematics, but that should learn how to apply it. Teachers should spend more time in finding suitable answers to the question: How to teach mathematics so as to be more useful? If teachers like to teach “useful” mathematics has been used to solve them, and it is not sufficient to introduce such problems, the process of applying mathematics in modeling and solving problems must be analyzed in classroom by teachers.

Actually it is not Always possible to find practical examples for students’ mathematical knowledge. Teachers may bring some examples in which statistics concepts and formulas are being applied to show that how students do the similar way in their own experiences. They also may encourage students to do some practical examples to experience the properties of analogous triangles. As a matter of fact, most of the pratical problems that in which students’ mathematical knowleudge could be applied are so complicated that the process of applying mathematics could not be analyzed and explained for them; trink about transistor simulation in electronics that needs a grate amount of knowlege in linear álgebra, differential equations, numerical methods etc.

1. Explique com suas próprias palavras sobre o que trata texto.

R:O texto fala sobre o ensino adequado da matemática para resolver problemas reais do dia a dia.

**Atividade 4.**

Leia o texto abaixo, sublinhe os possíveis adjetivos. Em seguida, responda as questões abaixo:

1. Quais as razões mencionadas no texto com relações à importância de lidar com os problemas históricos?

R: Saber que os problemas reais podem ser resolvidos e poder aprender técnicas e ferramentas para resolver outros problemas.

1. O que pode funcionar melhor do que a aplicação mecânica de métodos complicados para a solução de problemas matemáticos?

R: O uso de técnicas e ferramentas unidos ao a iniciativa e pensamento humano.

Considering the process of modeling and solving an old problem in history shows students the old ways and techniques of solving the problems. They may get some ideas from historical problems which could be useful for solving the problems. Historical problems may be interesting for students, but another importante reason for dealing problems, they get a sense that for applying mathematics in our life or solving the real problems, simple tools and tecniques together with human’s thought and initiave, may work better than mechanical application of several complicated methods and high amount of information. This will increase students’ self confidence and cause them to believe in their own abilities as human beings.

**Atividade 5.**

Complete o texto abaixo com uma das palavras abaixo. Em seguida, faça uma síntese do mesmo com suas próprias palavras (em português).

**Empowerment and Agency as Aims of Mathematics Education**

While I would not argue that most teachers view mathematics as a way to teach powerlessness, I do believe that, **frequently**, mathematics class **unfortunately** has such an affect. My claim **here** is that if empowering students is an aim of mathematics education (and I argue that it ought to be if increased the social equity and democratic participation are more general aims of education), **properly** rethinking the nature of mathematics is called for. A necessary step toward social justice is helping children recognize that their voice mathers. Real and lasting social change cannot come about until individuals realize the power that they possess. The mathematical class version of this is that they must develop *mathematical agency.*

In “Empowerment in Mathematics Education,” (2002), Paul Emest identifies three different but overlapping domains within which mathematics can be **highly** empowering for students: mathematical, social, and epistemological. Mathematical empowement refers to becoming fluente in the ways and language of shool mathematics Social empowerment involves using mathematics to: “better one’s life chances” (2002). Emest explains that the world in which we live is **frequently** quantified and that knowledge of and the ability to use mathematcs is critical to being able to negotiate it:

Our understanding is framed by the clock, calendar, work timetables, travel planning and timetables, finances and currencies, insurance, pensions, tax measurements of weight, length, área and volume, graphical and geometric representations, etc. macho f our experience of life is already mathematised and understanding to identify these mathematisations o four world, and the confidence to question and critique them, they canoot be in full controlo f their own lives, nor can they become **personally** informed and participating citizens. (Emest, 2002).

* Frenquently – Here – Unfortunately – properly – personally – then – highly.

1. Faça uma síntese do mesmo com suas próprias palavras (em português).

R: Usar a matemática como meio de empoeiramento é um objetivo que vale para a vida individual, mas infelizmente isso as aulas de matemáticas tem os tornado desanimados.

O uso da matemática segundo Paul Emest como instrumento empoderador pode trazer um maior desenvolvimento nas áreas da própria matemática na área social e epistemológica, fazendo o indivíduo um ser melhor preparado para um mundo quantificado.

**Atividade 6.**

Sublinhe todos os pronomes que você encontrar e observe que função cada um exerce no texto abaixo. A partir de uma leitura mais detalhada, responda as questões a seguir.

1. Qual o nome do projeto investigado?

R: Workshop Mathematical Experiences.

1. Em que autor a pesquisa se baseou e o que esse autor propõe?

R: Engestrõm (1999) who proposes an activity system composed of the elements: subject, object, mediator artifact, rules, community and work division.

1. Quais foram os instrumentos usados para coleta de dados?

R: Durante a coleta de dados, usamos um questionário inicial, assistimos às aulas e, finalmente, tivemos uma entrevista semiestruturada

**Abstract:** The objective of the curent work is to investigate the teaching activity held in the Project proposed by Govemment Department of Education in the State of São Paulo to schools that work full time, this Project is called Workshop Mathematical Experiences. We based our theoretical Activity Theory view of Engestrõm (1999) who proposes an activity system composed of the elements: subject, object, mediator artifact, rules, community and work division. We consider the teacher as the active subject working in the Workshop, the mathematical subject worked is the objective, Mathematical Experiences is the mediator artifact, the projective proposal and the guideline are the rules, the studets’ parentes and the school’s teachers is the community and the power of teachers’ decision and the others individuals at school is the work division. Based on this system we analyzed the contradiction between all these groups, with the purpose to answer our research question: *How the identification of contradictions in relations between the componentes of na activity system developed at the Workshop Mathematical Experiences, may help us to understand its operation?* So we used a qualitative approach and followed the methodology of case study, because we decided to pay attention to two teachers at a public school they teach at the Workshop Mathematical Experiences. During the data gathering we used na initial questionnaire, we watched the classes and finaly we had a semi-structured interview. The data analysis showed us throgh the contradictions identified that the Workshop Mathematical Experiences proposal, as well as its guidelines, are known and implemented by the interviewed teachrs in a superficial way, in other words, the Workshop Mathematical Experiences is not developed by them as available resources, which shows us the need to expand the work with the Workshop Mathematical Experiences in order to promote its effective carrying out and consistente with the needs of the educational scene requires.

**Key-words:** Workshop mathematical experiences. Acticity system. Activity theory.

**Atividade 7.**

Leia o exercício abaixo e compete-o com as preposições acima. Depois, cheque se suas escolhas foram adequadas (cf. Apêndices).

Is the recongnition **at** an ethics **in** mathematics education possible? I certainly hope so, as a latente premise **in** this paper is that it can not be and never was neutral. Furthermore, if we do not actively consider and attempt **to** shape the ethical meta-messages **in** mathematics, we might not be pleased **by** that ones that will nonetheless emerge. Thinking **in** mathematics class as a forum **by** students **to** leam to analyze, understand, and improve their world is a radical shift **to** both traditional and contemporary notions. I concede the dual enterprises **in** teaching and leaming mathematics is na importante first step. Hopefully this can pave the way **in** recognition **on** the possibilities of mathematics class becoming a legitimate arena **to** the battle **in** increased democratic partipation and social justice.

**Atividade 8.**

Elabore um vocabulário com 50 palavras em inglês com suas respectivas traduções.

1. Add: *v*: adicionar.
2. Battle. *s* ou *v*: Batalha ou Batalhar.
3. Best. *s*: Melhor.
4. Binary. *s*: Binário.
5. Body. *s*: Corpo.
6. Brain. *s*: Cérebro.
7. Bridge. *s* ou *v*: ponte ou transpor.
8. Busy. *adj*: ocupado.
9. Call. *v*: chamar.
10. Clean. *v*: Limpar.
11. Clear. *adj*: Claro.
12. Cloud. *s*: Nuvem.
13. Commit. *v*: Comprometer, devotar-se.
14. Computer. *s*: Computador.
15. Create. *v*: Criar.
16. Current. *adj*: Atual.
17. Danger. *s*: Perigo.
18. Deny. *v*: Negar.
19. Develop. *v*: desenvolver (algo) .
20. Disk. *s*: Disco.
21. Drop. *s* or *v*: Queda ou Soltar.
22. Each. *pron*: cada.
23. Enterprise. *s*: Empresa.
24. Fake. *adj, v* ou *s*: Falso, fingir ou falsificação.
25. Feel. *v* ou *s*: Sentir ou percepção.
26. Folks. *s*: Pessoal.
27. Foold. *s* ou *v*: enchente ou inundar.
28. Go. *v*: Ir.
29. Guest. *s*: Convidado.
30. Gun. *s* ou *v*: Arma ou atirar.
31. Hack. *s* or *v*: Corte ou Cortar.
32. Home. *s* ou *adj*: Lar ou Doméstico.
33. House. *s* ou *v*: casa ou abrigar.
34. If. *conj*: Se.
35. Land. *s* ou *v*: Terra/área ou aterrissar.
36. Lie. *v*: Mentir, Deitar.
37. Log. *s* ou *v*: Registro ou registrar.
38. Look for. *v*: Procurar.
39. Machine. *s*: Maquina.
40. Pan. *s*: Panela.
41. Pull. *v*: Puxar.
42. Push. *v*: Empurrar.
43. Run. *v*: Correr.
44. Server. *s*: Servidor.
45. Storage. *s*: Armazenamento.
46. Stream. *s*: Fluxo.
47. Tag. *s* ou *v*: Etiqueta ou etiquetar.
48. Take. *v*: Pegar.
49. War. *s*: Guerra.
50. Warning.*s*: Aviso.