## VERIFICAÇÃO DE ARTEFATO

Checklist - Rich Picture

Geral				
Descrição	Avaliação	Descrição do Problema	Sugestão de Ação Corretiva	Observaçõe
O Rich Picture possui legendas explicando os desenhos e formas?	Conforme			
O Rich Picture possui atores?	Conforme			
O Rich Picture possui retângulos representando os dados armazenados?	Conforme			
O Rich Picture possui elipses representando as operações feitas pelos atores?	Conforme			
O Rich Picture possui setas que indicam o fluxo do contexto?	Conforme			
O Rich Picture possui uma delimitação clara da fronteira do sistema?	Conforme			
Há no Rich Picture uma indicação para diferenciar os atores?	Conforme			
Os desenhos e palavras do Rich Pictures são identificáveis e	Conforme			



## Universidade de Brasília

Faculdade UnB Gama

Faculdade UnB Gama - FGA Disciplina: Requisitos de Software Professor: André Barros de Sales

Matrícula: 211031566 Nome: Ana Joyce Guedes Amorim da Silva

Tópico: Engenharia de Requisitos - Rastreabilidade (Lista de Verificação Rich Picture)

1. Identificação dos Atores: Todos os atores relevantes no problema foram identificados e rotulados de forma descritiva?

CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 4.

Rich Picture Components	Comments
Actors (with descriptive labels)  Manager Clerk	Actors are the users of your system. An actor may also represent a group of users; e.g., one manager plus five data clerks will still show two actors.  An actor may carry out any number of operations.  Represented graphically as matchstick people.
Onesetions	Operations enecify what the system door. Each eneration

2. Definição das Operações: As operações que cada ator precisa realizar foram claramente definidas?

CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 4.

	kepresented graphically as matchstick people.
Operations	Operations specify what the system does. Each operation
(also known as processes or	is executed either by an actor or another operation.
functions) Delete	Represented graphically as circles or ovals, with a
client	descriptive label inside.
D	Data stance are constituted to the sale of

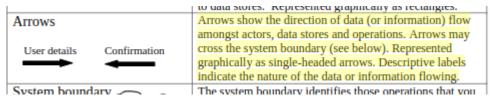
3. Requisitos de Dados: Os dados necessários para cada operação foram identificados, incluindo onde serão armazenados?

CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 4.

	descriptive more monde.
Data stores	Data stores are essentially the tables in your database or
(also known as tables) Clients	files in the system. It is also necessary to show the type of
Clients	data they contain. Only operations may read from or write
	to data stores. Represented graphically as rectangles.
Arrows	Arrows show the direction of data (or information) flow

4. Fluxo de Dados: O fluxo de dados entre atores, operações e armazenamentos foi representado com setas e rotulado adequadamente?

# CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 4.



5. Limite do Sistema: A fronteira do sistema foi desenhada para definir claramente a área de responsabilidade?

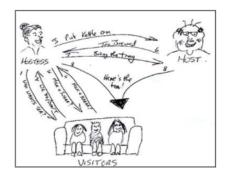
CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 5.

The software system you develop will rarely support the whole business. It would be too complex. By drawing the system boundary, you are defining your area of responsibility. In other words, your software will need to support only what lies within the boundary. What lies outside is someone else's responsibility.

6. Representação Visual: O Rich Picture utiliza imagens e diagramas para representar conceitos e relações de forma clara e compreensível?

CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 3.

Finally, for a little light relief, here is a rich picture of how to entertain visitors:



You will have realised by now that there is no standard notation for drawing rich pictures.

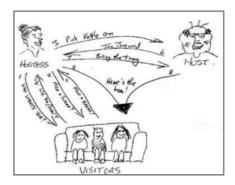
You could make up your own notation, if you wanted to. However, it is always good to have some kind of standard.

Given below are the guidelines that this module expects you to follow.

7. Simplicidade e Clareza: O Rich Picture não é excessivamente verboso e comunica a mensagem de forma eficaz?

CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 3.

Finally, for a little light relief, here is a rich picture of how to entertain visitors:



You will have realised by now that there is no standard notation for drawing rich pictures.

You could make up your own notation, if you wanted to. However, it is always good to have some kind of standard.

Given below are the guidelines that this module expects you to follow.

Your rich picture must tell a story. This means using images, pictures, keywords and descriptive labels, to give the reader a very good idea of what is going on. In terms a business problem, your rich picture must say who is processing what data for what purpose, what data is coming into the system, what information is going out, and so on.

8. Revisão e Iteração: O Rich Picture foi revisado e atualizado conforme a compreensão do problema evolui?

CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 8.

Your first rich picture may well be incomplete the first time; so, be prepared to edit and develop it further, as your analysis and understanding of the problem deepens.

9. Identificação de Problemas e Conflitos: Potenciais problemas e conflitos foram identificados e representados no Rich Picture?

CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 1.

When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- · Business processes and their data requirements
- · The actors involved in the processes and their responsibilities
- · The relationships between processes and actors
- Potential problems and conflicts
- 10. Feedback de Stakeholders: O Rich Picture foi compartilhado com stakeholders para obter feedback e garantir que todos os aspectos relevantes foram considerados? CTEC2402 - SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. Leicester: University of Leicester, 2010. pg. 4.

Note that a rich picture may represent a wider business perspective than the specific problem that you want to solve. In other words, it may contain things that you will not be required to implement. So, having drawn a rich picture, it is vitally important to define your "area of responsibility".

Here is an approach to drawing business-related rich pictures:

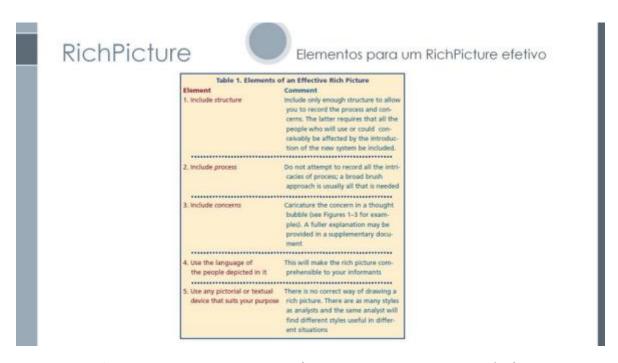
## **FCTE - UNB**

**Davi Emanuel Ribeiro de Oliveira** 

Lista de Verificação para Rich Picture

Brasília - DF

1) Mostra processos e atividades		
principais?	1. Include structure	Include only enough structure to allow you to record the process and con- cerns. The latter requires that all the people who will use or could con- ceivably be affected by the introduc- tion of the new system be included.
2) Usa ícones, desenhos ou		
metáforas visuais?	<ol> <li>Use any pictorial or textual device that suits your purpose</li> </ol>	There is no correct way of drawing a rich picture. There are as many styles as analysts and the same analyst will find different styles useful in different situations
3)Está claro e compreensível para		
outras pessoas?	Use the language of the people depicted in it	This will make the rich picture com- prehensible to your informants
4)Esse item reforça a importância de		
usar uma linguagem familiar ao público?	Use the language of the people depicted in it	This will make the rich picture com- prehensible to your informants
5) identifica metas e objetivos dos		
stakeholders?	3. Include concerns	Caricature the concern in a thought bubble (see Figures 1–3 for exam- ples). A fuller explanation may be provided in a supplementary docu- ment



Apresentação da aula de requisitos - Pré rastreabilidade - aula 04 / página 11

0)	
6) mostra o ambiente externo?	System boundary  (usually a solid like  But my also be dashed)  The system boundary identifies those operations that you are responsible for (i.e., your area of responsibility), which means that your system must carry out everything that is inside the system boundary. You can ignore what is outside. Represented graphically as a circular line.  Normally, this is the last thing you should add to your rich picture.
7)Representa os fluxos de	Arrang show the direction of data (or information) flow
informação ou recursos?	Arrows Arrows show the direction of data (or information) flow amongst actors, data stores and operations. Arrows may cross the system boundary (see below). Represented graphically as single-headed arrows. Descriptive labels indicate the nature of the data or information flowing.
8) A fronteira do sistema está clara?	System boundary  The system boundary identifies those operations that you are responsible for (i.e., your area of responsibility), which means that your system must carry out everything that is inside the system boundary. You can ignore what is outside. Represented graphically as a circular line. Normally, this is the last thing you should add to your rich picture.
9)Os elementos de armazenamento	
(bancos de dados, arquivos, tabelas)	
estão representados?	Data stores (also known as tables) Clients  Data stores are essentially the tables in your database or files in the system. It is also necessary to show the type of data they contain. Only operations may read from or write to data stores. Represented graphically as rectangles.
10) Fatores externos que afetam o	
sistema estão desenhados ou mencionados?	System boundary  (usually a solid like  But my also be dashed)  The system boundary identifies those operations that you are responsible for (i.e., your area of responsibility), which means that your system must carry out everything that is inside the system boundary. You can ignore what is outside. Represented graphically as a circular line. Normally, this is the last thing you should add to your rich picture.
11) Todos os atores estão incluídos?	Actors (with descriptive labels)  Actors are the users of your system. An actor may also represent a group of users; e.g., one manager plus five data clerks will still show two actors.  An actor may carry out any number of operations.  Represented graphically as matchstick people.

Observação: Figura utilizada nos tópicos logo abaixo.

#### **Rich Picture Drawing Guidelines**

For the purposes of this module, you should use the following components (all components are available online, in Word or Powerpoint or similar):

Rich Picture Components	Comments
Actors (with descriptive labels)  Manager Clerk  Operations (also known as processes or functions)	Actors are the users of your system. An actor may also represent a group of users; e.g., one manager plus five data clerks will still show two actors.  An actor may carry out any number of operations.  Represented graphically as matchstick people.  Operations specify what the system does. Each operation is executed either by an actor or another operation.  Represented graphically as circles or ovals, with a descriptive label inside.
Data stores (also known as tables) Clients	Data stores are essentially the tables in your database or files in the system. It is also necessary to show the type of data they contain. Only operations may read from or write to data stores. Represented graphically as rectangles.
Arrows User details Confirmation	Arrows show the direction of data (or information) flow amongst actors, data stores and operations. Arrows may cross the system boundary (see below). Represented graphically as single-headed arrows. Descriptive labels indicate the nature of the data or information flowing.
System boundary (usually a solid like But my also be dashed)	The system boundary identifies those operations that you are responsible for (i.e., your area of responsibility), which means that your system must carry out everything that is inside the system boundary. You can ignore what is outside. Represented graphically as a circular line. Normally, this is the last thing you should add to your rich picture.

Note that a rich picture may represent a wider business perspective than the specific problem that you want to solve. In other words, it may contain things that you will not be required to implement. So, having drawn a rich picture, it is vitally important to define your "area of responsibility".

Here is an approach to drawing business-related rich pictures:

- 1. Identify the actors in the problem domain
- 2. For each actor, identify the operations they need to perform
- 3. Identify the data requirements of each operation, noting
  - a. Where data will be held; and
  - b. The direction of data flow between actors, operations, and stores
- 4. Draw the system boundary to define your area of responsibility.

Introducing Rich Pictures - Rich Picture Drawing Guidelines/ Página 4

# Fábio Gabriel da Silva Barbosa 222006712

## Lista de Verificação - Rich Picture: Meu INSS

## 1. Representa todos os atores relevantes?

Atores principais e secundários foram incluídos (usuários, órgãos, sistemas)

## **Rich Picture Drawing Guidelines**

For the purposes of this module, you should use the following components (all components are available online, in Word or Powerpoint or similar):

Rich Picture Components	Comments
Actors (with descriptive labels)  Manager Clerk	Actors are the users of your system. An actor may also represent a group of users; e.g., one manager plus five data clerks will still show two actors.  An actor may carry out any number of operations.  Represented graphically as matchstick people.

CTEC2402 pg 4

#### 2. Inclui as Relações entre os Atores?

As conexões e interações entre os atores estão representadas com setas e descrições textuais.

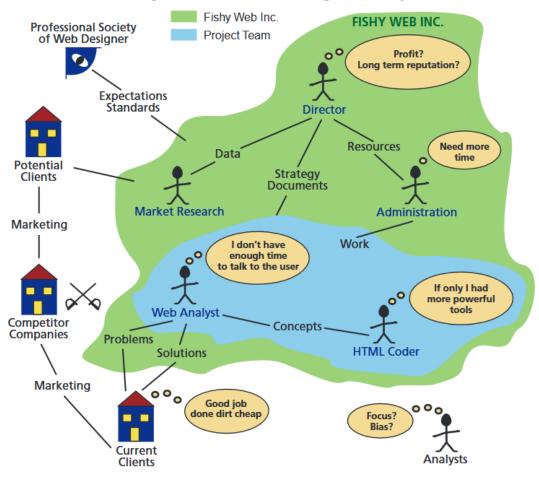
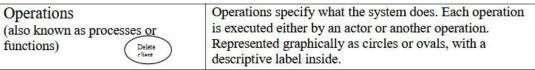


Figure 2 Rich Picture of Web Design Consultancy

"Rich pictures help to visualize complex systems" (SCACCHI, [s.d.], p. 25)

#### 3. Mostra os Processos/Operações principais?

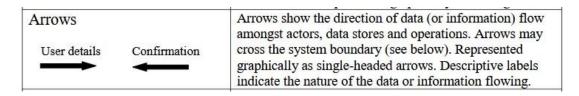
As funcionalidades principais do sistema, como autenticação, visualização de documentos digitais, notificações, atualizações e validações, estão representadas no diagrama.



CTEC2402 pg 4

#### 4. Representa o Fluxo de Informação ou de Atividades?

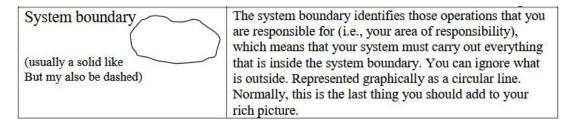
O fluxo de dados é representado com setas que indicam a direção da comunicação entre os elementos do sistema, como envio, sincronização e visualização de informações.



CTEC2402 pg 4

#### 5. Inclui a Fronteira do Sistema?

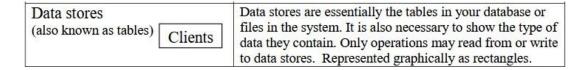
Estar claro o que está dentro e fora da fronteira do sistema.



CTEC2402 pg 4

#### 6. Representa Armazenamento de Dados?

O local de armazenamento das informações é identificado.



CTEC2402 pg 4

#### 7. Evita formalismo excessivo?

O diagrama não deve se parecer com fluxograma técnico.

your informants and then make changes based on what they tell you. Drawing a rich picture then is an iterative process of understanding and refining that understanding.

What does a rich picture look like? The rich picture depicts the primary stakeholders,

"Rich pictures help to visualize complex systems" (SCACCHI, [s.d.], p. 22)

## 8. É compreensível para leigos?

Mesmo sem conhecimento técnico, a estrutura do Rich Picture permite que qualquer pessoa entenda o funcionamento básico do sistema.

4. Use the language of This will make the rich picture comthe people depicted in it prehensible to your informants

"Rich pictures help to visualize complex systems" (SCACCHI, [s.d.], p. 24)



#### Universidade de Brasília

Faculdade UnB Gama

**Disciplina:** Requisitos de Software **Professor:** André Barros de Sales

Matrícula: 211030756 Nome: Gabriela Silva Alves

# Atividade Avaliativa (Individual): Projeto: Lista de verificação para o RichPicture

## 1. Declaração do Problema

- [ ] Inicie o rich picture com uma breve declaração do problema central, posicionando-a no centro da página para orientar o restante do desenho.

## How to Draw a Rich Picture?

One approach is to start with a short problem statement, in the centre of the page; and then, place all the relevant keywords around it.

CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.2.

#### 2. Identificação dos Atores

- [ ] Liste e represente graficamente todos os atores (usuários, clientes, grupos) envolvidos no domínio do problema, geralmente desenhados como figuras humanas simples

Here is an approach to drawing business-related rich pictures:

- 1. Identify the actors in the problem domain
- 2. For each actor, identify the operations they need to perform
- 3. Identify the data requirements of each operation, noting
  - a. Where data will be held; and
  - The direction of data flow between actors, operations, and stores
- 4. Draw the system boundary to define your area of responsibility.

CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.4.

## 3. Definição das Operações/Processos

- [ ] Para cada ator identificado, determine as operações, processos ou funções que eles executam no contexto do problema. Geralmente, essas operações são

representadas por círculos ou ovais com rótulos descritivos.

Here is an approach to drawing business-related rich pictures:

- 1. Identify the actors in the problem domain
- 2. For each actor, identify the operations they need to perform
- Identify the data requirements of each operation, noting
  - a. Where data will be held; and
  - b. The direction of data flow between actors, operations, and stores
- Draw the system boundary to define your area of responsibility.

CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.4.

## 4. Indicação dos Depósitos de Dados

- [ ] Identifique os depósitos de dados ou fontes de informação necessários para o funcionamento dos processos. Esses elementos costumam ser representados por retângulos ou formas similares.

Here is an approach to drawing business-related rich pictures:

- 1. Identify the actors in the problem domain
- 2. For each actor, identify the operations they need to perform
- 3. Identify the data requirements of each operation, noting
  - a. Where data will be held; and
  - b. The direction of data flow between actors, operations, and stores
- 4. Draw the system boundary to define your area of responsibility.

CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.4.

## 5. Representação dos Fluxos de Informação

- [ ] Utilize setas (com rótulos, se necessário) para mostrar o fluxo de dados ou informações entre atores, operações e depósitos de dados. Isso ajuda a visualizar as relações e interdependências.

Here is an approach to drawing business-related rich pictures:

- Identify the actors in the problem domain
- 2. For each actor, identify the operations they need to perform
- 3. Identify the data requirements of each operation, noting
  - a. Where data will be held; and
  - b. The direction of data flow between actors, operations, and stores
- 4. Draw the system boundary to define your area of responsibility.

CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.4.

#### 6. Delimitação da Fronteira do Sistema

- [ ] Desenhe a fronteira do sistema para definir claramente a área de responsabilidade do software ou solução a ser desenvolvida. Essa delimitação ajuda a distinguir o que está sob controle da equipe do que está fora dela.

Remember that a rich picture without the system boundary shows the complete business model (i.e., how the whole business runs). This provides a high-level representation of the entire problem domain.

The software system you develop will rarely support the whole business. It would be too complex. By drawing the system boundary, you are defining your area of responsibility. In other words, your software will need to support only what lies within the boundary. What lies outside is someone else's responsibility.

For example, the rich picture above says that the software must enable customers to browse for books and place orders. The clerk processes those orders and arranges delivery to customers. The rich picture also says that your system is not responsible for how the books are actually delivered to the customers. Also note that how the manager communicates with the publishers is not your responsibility.

Only after drawing the system boundary can you start to think about functionality.

CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.5.

## 7. Utilização de Imagens, Ícones e Palavras-Chave

- [ ]Para reforçar a comunicação, inclua elementos visuais (imagens, ícones) e palavras-chave que ajudem a contar a "história" do problema de forma clara e intuitiva.

Your rich picture must tell a story. This means using images, pictures, keywords and descriptive labels, to give the reader a very good idea of what is going on. In terms a business problem, your rich picture must say who is processing what data for what purpose, what data is coming into the system, what information is going out, and so on. CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.3.

#### 8. Iteração e Aperfeiçoamento Contínuo

- [ ] Revise e atualize o rich picture à medida que sua compreensão do problema evolui, garantindo que o desenho se mantenha fiel à realidade e às necessidades identificadas.

Your first rich picture may well be incomplete the first time; so, be prepared to edit and develop it further, as your analysis and understanding of the problem deepens.

CTEC2402 SOFTWARE DEVELOPMENT PROJECT. Introducing Rich Pictures. p.8.



## Universidade de Brasília

Faculdade UnB Gama

Faculdade UnB Gama - FGA

Professor: André Barros de Sales Disciplina: Requisitos de Software Matrícula: 231011696 Nome: Luiz Guilherme Morais da Costa Faria Tópico: Lista de

verificação para o Rich Picture

Lista de verificação de Rich Pictures

1. O Rich Picture deve possuir atores como um de seus componentes. Esses atores devem possuir seus respectivos rótulos. Os atores representam os usuários (ou grupo deles) do sistema. Eles são representados com desenho de pessoas palito.

(Introducing Rich Pictures, CTEC2402, página 4)

<b>Rich Picture Components</b>	Comments
Actors (with descriptive labels)	Actors are the users of your system. An actor may also
£ 3	represent a group of users; e.g., one manager plus five
X *\d*	data clerks will still show two actors.
Manager Clerk	An actor may carry out any number of operations.
Manager Clerk	Represented graphically as matchstick people.

2. O Rich Picture deve possuir também operações (também chamadas de processos ou funções). As operações especificação o que o sistema faz. Cada operação é executada ou por um ator ou por outra operação. Elas são representadas graficamente por círculos ou elipses.

(Introducing Rich Pictures, CTEC2402, página 4)

Operations	Operations specify what the system does. Each operation
(also known as processes or	is executed either by an actor or another operation.
functions)	Represented graphically as circles or ovals, with a
client	descriptive label inside.
_	

3. O Rich Picture deve possuir armazéns de dados. Eles são as tabelas da base de dados ou os arquivos daquele sistema. Eles devem ser representados por retângulos e devem mostrar o tipo de dado que eles contêm. As únicas operações que devem ser feita com eles são as de ler ou escrever neles.

(Introducing Rich Pictures, CTEC2402, página 4)

	<u> </u>
Data stores	Data stores are essentially the tables in your database or
(also known as tables) Clients	files in the system. It is also necessary to show the type of
Clients	data they contain. Only operations may read from or write
	to data stores. Represented graphically as rectangles.

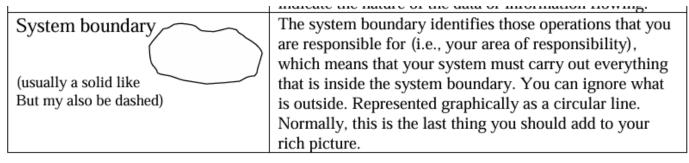
4. O Rich Picture deve possuir setas, elas mostram a direção em que os dados ou informação se comunicação entre os atores, as operações e os armazéns de dados. As setas podem ultrapassar a barreira do sistema.

(Introducing Rich Pictures, CTEC2402, página 4)

		to data stores. Teepresented graphically as rectangles.
Arrows		Arrows show the direction of data (or information) flow
		amongst actors, data stores and operations. Arrows may
User details	Confirmation	cross the system boundary (see below). Represented
<b></b>	<b>←</b>	graphically as single-headed arrows. Descriptive labels
		indicate the nature of the data or information flowing.

5. O último componente do Rich Picture é a barreira do sistema, ela identifica as operações que o sistema é responsável por realizar e portanto devem ser construídas pelo engenheiro de software. Assim, as operações que ocorrem de fora da barreira podem ser ignoradas, pois não serão implementadas.

(Introducing Rich Pictures, CTEC2402, página 4)



6. Ao analisar o Rich Picture, deve ser possível analisar os processos de negócio e os dados que eles exigem

(Introducing Rich Pictures, CTEC2402, página 1)

When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- Potential problems and conflicts
- 7. Deve ser possível identificar os atores envolvidos nos processos e as suas responsabilidades.

(Introducing Rich Pictures, CTEC2402, página 1)

When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- · Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- Potential problems and conflicts
- 8. Deve ser possível identificar as relações entre os processos e os atores representados no Rich Picture

(Introducing Rich Pictures, CTEC2402, página 1)

When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- · Potential problems and conflicts
- 9. Por fim, é possível encontrar possíveis problemas e conflitos ao analisar o Rich Picture.

(Introducing Rich Pictures, CTEC2402, página 1)

When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- Potential problems and conflicts