ABSTRACT
Professionals who want to utilise the SAS system in their daily work can undertake many certifications, which are introduced by the SAS Institute. These certifications allow the SAS user to enhance their knowledge of SAS system and specialise in the field of analytics. One of AstraZeneca’s values is “Individual Development”. This opportunity is taken to implement the certifications to develop individuals as SAS specialists with industry recognised SAS credentials such as the SAS Base and SAS Advanced certifications.

The purpose of this poster is to present the opportunity to undertake the SAS certifications to allow an individual to widen their skills and to be recognised in the industry they are employed in. Also to evaluate on who should take a certification and how this is weighed against industry experience. From a management point of view, this will be a way of recognising individuals who currently hold SAS skills at industry level.

INTRODUCTION
This information should aid those people who are either new to SAS system or those who currently make use of the SAS system and are looking to further their career by increasing their knowledge and skills, using SAS.

As a SAS software user, the professional program will allow you to:
1. Measure your knowledge of SAS software
2. Enhance your credibility as a technical professional
3. Allow you to earn (industry) SAS software recognition for your knowledge
4. Boost your career opportunities and marketability

While from a management point of view the professional program will:
1. Provide a benchmark for measuring an employee’s knowledge of SAS software
2. Help managers to distinguish the most qualified technical professionals
3. Help to increase productivity levels
d. Aid in defining employee learning paths, thereby improving the organization’s aptitude with SAS software

You should take a moment and ask yourself, will a certification help you progress in your career? How important do you think the certification is and whether your experience means more to you or would you benefit from taking a SAS certification? Alternatively if you are a manager, do you think that SAS certification will help train your team so they can utilise their programming skills to their full potential?

WHAT IS SAS CERTIFICATION?
SAS Global Certification is intended to propel forward the professional development of individuals in their careers. It will be an official recognition for a qualified SAS Analyst/Programmer and has many rewards for an individual who want to excel in their industry.
Below you can see all of the SAS Certified credentials:

SAS Base Programmer Credential is a stepping stone for people with minimum of one years SAS programming experience who can then stand out by learning the fundamentals of programming and data management in SAS version 9. There are three ways to prepare for the exam, one way is on-line self paced E-learning, another is by studying the SAS Base certification Text book or any other SAS text book and the third which is probably the most expensive way out of the three, by instructor led training or live web class. To find out the full details of the costs of the courses provided, to prepare for the SAS certifications, please visit the website http://support.sas.com/certify/. The exam itself is £78.00 and taken in a Prometric Test Centre which are located nationally. The SAS Base certification exam has 70 multiple choice questions from which you need to answer 46 correctly as the pass mark is 65%. Easy!

**EXAM QUESTIONS**

Exam Questions …test yourself to see if you know the answer

1) The following SAS program is submitted:
   data test;
   set sasuser.employees;
   if 2 le years_service le 10 then
      amount = 1000;
   else if years_service gt 10 then
      amount = 2000;
   else
      amount = 0;
   amount_per_year = years_service / amount;
   run;

   Which one of the following values does the variable AMOUNT_PER_YEAR contain if an employee has been with the company for one year?
   A. 0
   B. 1000
   C. 2000
   D. . (missing numeric value)

2) The following SAS program is submitted:
   data test;
   set sasuser.employees;
   if 2 le years_service le 10 then
amount = 1000;
else if years_service gt 10 then
  amount = 2000;
else
  amount = 0;
amount_per_year = years_service / amount;
run;

Which one of the following values does the variable AMOUNT_PER_YEAR contain if an employee has been with the company for three years?
A. 0
B. 1000
C. 2000
D. None of the above

3) The contents of the raw data file AMOUNT are listed below:

<table>
<thead>
<tr>
<th></th>
<th>10</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,234</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following SAS program is submitted:

data test;
infile 'amount';
input @1 salary 6.;
if _error_ then description = 'Problems';
else description = 'No Problems';
run;

Which one of the following is the value of the DESCRIPTION variable?
A. Problems
B. No Problems
C. ‘ ’ (missing character value)
D. The value cannot be determined as the program fails to execute due to errors.

The answers can be found at the end of the paper in the conclusion.

CERTIFICATION VERSUS EXPERIENCE

CERTIFICATION
• More suitable for recent graduates, inexperienced SAS programmers and people who have taken a break from SAS programming
• It is an easy and quick route to gaining SAS skills and provides evidence to employers that you have the required skills
• Different industries will require different skill areas from the certification. E.g. the Pharma industry will require skills in data manipulation, whilst the banking industry may require skills in reading external data. Therefore, some areas of the certification may not be of use if a person remains in one industry.

EXPERIENCE
• People with vast amounts of experience in SAS programming do not need to take a certification as their past experience shows that they have the necessary skills to go about doing their daily work
• Individuals develop their skills over the years, known as “On the job” training
• An experienced person applying for a new job, would be able to give real life examples to show their knowledge and SAS skills, and will more than likely be given a SAS test, therefore not requiring a certification.

OVERALL
People, who undergo the certification, whilst in a SAS environment employment, will reap the benefits of both. They will gain the theoretical SAS knowledge through the exams and build on their practical SAS skills through their daily employment activities.
CONCLUSION

Certification:
- Pros: Evidence to show a person has a broad knowledge of SAS programming (as to have a broad knowledge of SAS, you need to know about installing SAS and its architecture and solutions) and how competent they are
- Cons: Time consuming, costly, companies may not be interested, gain areas of SAS knowledge that may not be required

Experience:
- Pros: Industry experience gained and will have evidence of real life examples to show their competence and knowledge
- Cons: No paper evidence of knowledge and ability to show new employers, may have limited knowledge to just one industry

Answers to SAS questions are 1) d 2) d 3) a

REFERENCES
The following website address will provide further information: http://support.sas.com/certify/.

CONTACT INFORMATION
Your comments and questions are valued and encouraged. Contact the author at:
Author Name: Amar Najib
Company: Citi Bank
Address: Pride Park
City / Postcode: Derby DE99 3GG
Work Phone: 01332 628583
Fax:
Email:amar.najib@citi.com
Web: www.citi.com

Co Author Name: Donna Thompson
Company: AstraZeneca
Address: Parklands, SE2 C/1
City / Postcode: Macclesfield, SK10 4TG
Work Phone: 01625518910
Email: donna.Thompson@astrazeneca.com

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