results from monthly monitoring exams should have a rising trend for the first metric at a level not lower than 1% per month

Name:

results

Value expression:

[Measures].[Result]

Goal expression:

(KPIValue("results"), ParallelPeriod([Dim Date].[Hierarchy].[Month], 1, [Dim Date].[Hierarchy].CurrentMember))*1.01

Status expression:

IIf (KPIValue("results") > KPIGoal("results"), 1, -1)

Trend expression:

IIf(KPIValue("results") > ParallelPeriod([Dim Date].[Hierarchy].[Month], 1, [Dim Date].[Hierarchy].CurrentMember), 1, -1)

points of students' satisfaction for the second one at a level not lower than 5% per year

Name:

satisfaction

Value expression:

[Measures].[Satisfaction Level]

Goal expression:

(KPIValue("satisfaction"), ParallelPeriod([Dim Courses].[Hierarchy].[Year Range], 1, [Dim Courses].[Hierarchy].CurrentMember)) * 1.05

Status expression:

IIf(KPIValue("satisfaction") > KPIGoal("satisfaction"), 1, -1)

Trend expression:

**IIf(KPIValue("satisfaction") >
(KPIValue("satisfaction"),ParallelPeriod([Dim
Courses].[Hierarchy].[Year Range], 1, [Dim
Courses].[Hierarchy].CurrentMember)), 1, -1)**

1. Does a year of studying have an impact on average level satisfaction?

```
SELECT
  [Measures].[AVGsatisfaction] ON COLUMNS,
  [Dim Courses].[Year Range].Members ON ROWS
FROM DW
```

2. Is there any correlation between students' satisfaction and type of course that runs it?

```
SELECT
  [Measures].[AVGsatisfaction] ON COLUMNS,
  [Dim Courses].[Course ID].Members ON ROWS
FROM DW
```

3. Compare the results in relation to the family status of students:

```
SELECT
  [Measures].[AVGresult] ON COLUMNS,
  [Dim Students].[Family Status].Members ON ROWS
FROM DW
```

4. What are the results of the overall best-students in the current and the previous month?

```
WITH MEMBER [Student].[Full Name] AS
[Student].[Name].CurrentMember.Name + ' ' +
[Student].[Surname].CurrentMember.Name

WITH SET [TopStudents] AS
  TOPCOUNT( [Student].[Full Name].MEMBERS, 5, [Measures].[Average Exam
Results] )

SELECT

  {[Measures].[AVGresults]} ON COLUMNS,

  { ([Dim Date].[Date].[2023].[May], [TopStudents]), (([Dim
Date].[Date].[2023].[June],[TopStudents]) } ON ROWS

FROM DW


WITH

SET [TopStudentsMay] AS

  TOPCOUNT(

    [Dim Students].[Student ID].Members,

    5,

    ([Dim Date].[Month].[May], [Measures].[AVGresult])

  )

SET [TopStudentsJune] AS

  TOPCOUNT(

    [Dim Students].[Student ID].Members,

    5,

    ([Dim Date].[Month].[June], [Measures].[AVGresult])
```

```
 )
SELECT
 {[Measures].[AVGresult]} ON COLUMNS,
 NON EMPTY {
  ([Dim Date].[Year].[2023], [Dim Date].[Month].[May]),
  ([Dim Date].[Year].[2023], [Dim Date].[Month].[June])
 } ON ROWS
FROM DW
```

5. Compare the exam results from each subject from this month to the previous months.

```
SELECT
 [Dim Subjects].[Name].Members ON COLUMNS,
{ [Dim Date].[Date].&[2023-03-01T00:00:00], [Dim Date].[Date].&[2023-02-01T00:00:00], [Dim Date].[Date].[Ratio]} ON ROWS
FROM DW
WHERE  [Measures].[AVGresult]
```

6. Analyze the correlation between attendance and exam results this month to the previous

```
SELECT
 { [Dim Date].[Date].&[2023-03-01T00:00:00], [Dim Date].[Date].&[2023-02-01T00:00:00]} ON COLUMNS,
 {[Measures].[Attendance Rate], [Measures].[AVGresult]} ON ROWS
FROM DW
```

7. Does final exam grade have an impact on satisfaction?

```
SELECT
{
  ([Measures].[AVGresult],[Dim Courses].[Course ID].&[4]),
  ([Measures].[AVGsatisfaction],[Dim Courses].[Course ID].&[4])
} ON COLUMNS,
{
  FILTER(
    [Dim Students].[Student ID].Members,
    (
      NOT IsEmpty(([Measures].[AVGresult],[Dim Courses].[Course ID].&[4])) AND
      NOT IsEmpty(([Measures].[AVGsatisfaction],[Dim Courses].[Course ID].&[4]))
    )
  )
} ON ROWS
FROM DW
```

8. Which method gives the best result for given subjects?

```
WITH SET TopTeachingMethods AS
  TOPCOUNT([Dim Teachers].[Teaching Method].Members, 1,
[Measures].[AVGresult])
SELECT
  {[Measures].[AVGresult]} ON COLUMNS,
  TopTeachingMethods ON ROWS
FROM DW
```

9. Identify the profiles that have the overall best exam results.

```
WITH SET TopProfiles AS
  TOPCOUNT([Dim Classes].[Profile].Members, 1, [Measures].[AVGresult])
SELECT
  {[Measures].[AVGresult]} ON COLUMNS,
  TopProfiles ON ROWS
FROM DW
```

10. Does the length of employment of a teacher have an impact on the exam result over time?

```
SELECT
  {[Measures].[AVGresult]} ON COLUMNS,
 [Dim Teachers].[Year Of Employment].Members ON ROWS
FROM DW
```

10. Compare the exam results in 2 semester for each profile in current year

```
SELECT
  [Measures].[AVGresult] ON COLUMNS,
  [Dim Classes].[Profile].Members ON ROWS
FROM DW
WHERE  ([Dim Date].[Semester].[Summer], [Dim Date].[Year].[2023] )
```